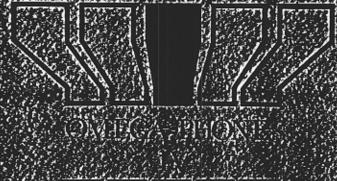
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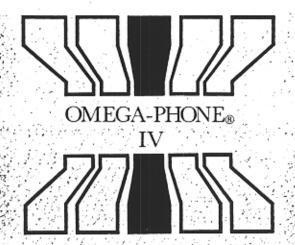
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PART 24 FEATURES AND THEIR OPERATION
PART 4 PROGRAMMING

ELECTRONIC KEY TELEPHONE SYSTEM

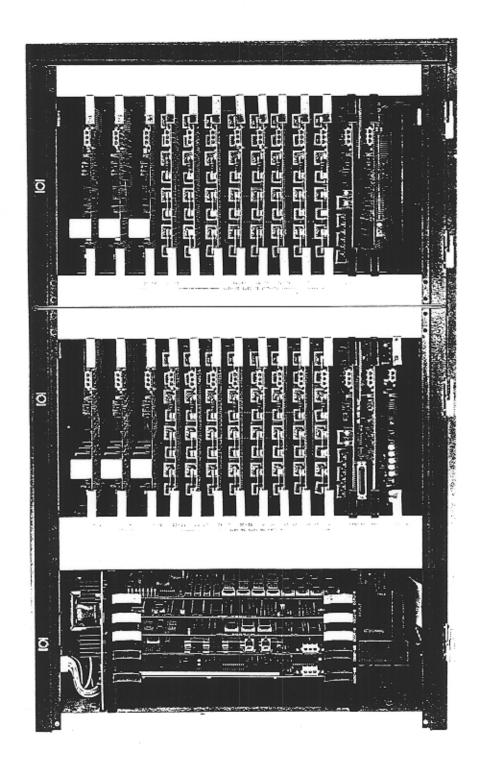


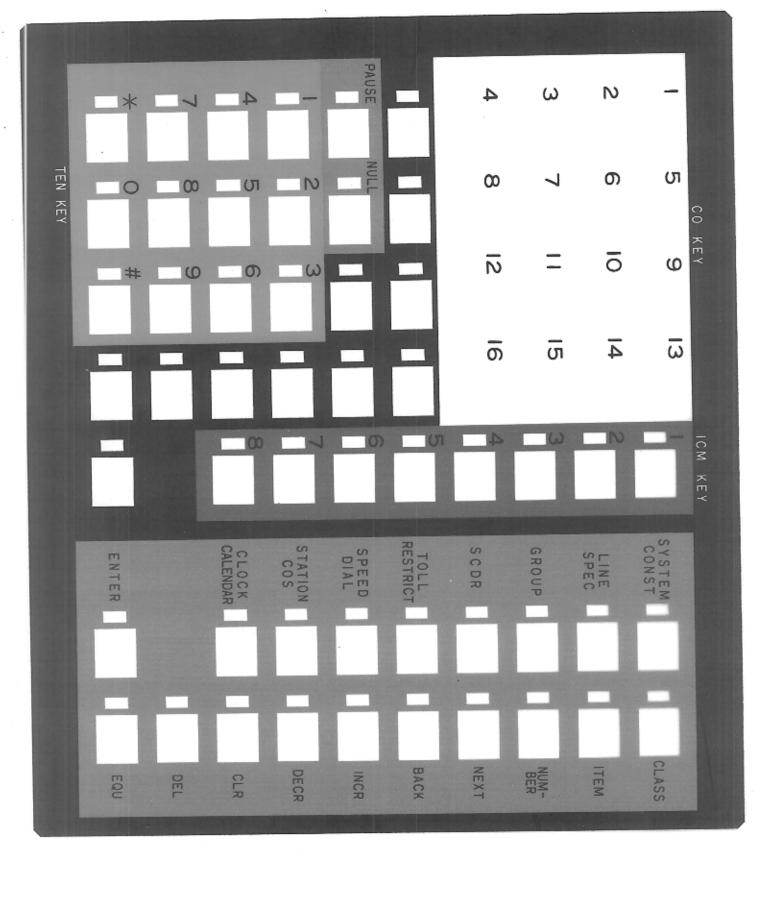
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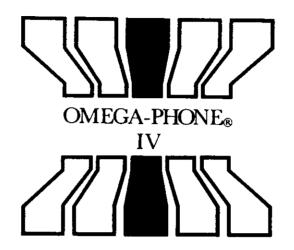
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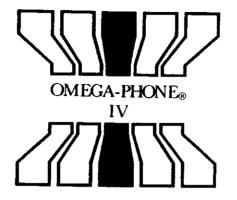


2.1 GENERAL

CONTENTS

2.1.1	Configuration
2.1.2	Glossary
2.1.2.1	Terms
	Abbreviations
	Operation Symbols

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL



GENERAL

2.1.1 Configuration

Part 2 describes the system features and their operation of the Electronic Key Telephone System EX-1232/2464 in detail. The configuration of this manual and the outline of the contents are described below:

- 2.1 General: Configuration and contents of this manual
- 2.2 System Overview
 - 2.2.1 Software: Software configuration and software package
 - 2.2.2 System Configuration: Hardware configuration and logical configuration
- 2.3 System Feature and Their Operation: Detailed explanation of each service feature in alphabetical order
- 2.4 Programming Feature: System data programming method

The terms, abbreviations and operation symbols are explained in the following pages.

2.1.2 Glossary

Each feature or hardware name is uniformly used in this manual. Each name is defined or explained in the following:

2.1.2.1 Terms

Attendant:

A key telephone in a special position with on EX-Direct Station Selection-M/N

(DSS-M/N)

Attendant Console: An EX-Direct Station Selection-M/N console (DSS-M/N)

Busy:

Off-hook or speaker on

Busy Lamp Field:

DSS key lamps on attendant console or EX-Busy Lamp Field Unit-M (BLF-M)

Central Office Line: A line connected to Central Office Trunk Card-ME(CTRK-ME)

Display:

A key telephone LCD unit or an LCD unit for DSS-M (DSLD-M)

Extension:

A key telephone (KT) Versa Phone (VP) or single-line telephone (SLT)

Function key:

A key other than line keys and DSS keys

Idle:

Connected to no lines

Intercom:

A line between extensions

Key Lamp:

An LED associated with a key An EX-824/1648K, D, KN, DN

Key Telephone: Programming

Terminal:

An EX-Direct Station Selection M/N (DSS-M/N) with a DSS Programming Overlay-

M1 (PROV-M1) and an LCD Unit for DSS (DSLD-M)

Station:

An extension, attendant console, programming terminal, or EX-Busy Lamp Field

Unit-M (BLF-M)

Trunk:

A CO line, E & M tie line, or intercom line Versatile Telephone (EX-824/1648 VP-N)

Versa Phone:

2.1.2.2 **Abbreviations**

The meanings of the abbreviations used in Part 2 of this manual are given in Table 2.1.2.2.

Table 2.1.2.2 Abbreviations in Part 2

No.	Abbreviation	Meaning
A	ADD ADJUST ALL ANA AOT ATTND	Add-on conference key Adjust function key on attendant console All-call key Automatic night assignment Add on tone Attendant
В	BBB BACK BFWD BGM BLF BLF-M BT	Busy bypass burst Back function key on programming terminal Busy call forward Background music Busy lamp field EX-Busy Lamp Field Unit-M Busy tone
С	CALC CBT CLASS CLR CO COL CONC CONF COTS CPT CT CTA C-HOLD	Calculator key Callback tone Class function key on programming terminal Clear function key on programming terminal Central office or central office line Central office line Connect function key on attendant console Conference trunk (CONF-ME) Camp on tone for SLT Call progress tone Confirmation tone Confirmation tone for attendant Consultation hold
D	DDD DECR DEL DND	Direct distance dialing Decrement function key on programming terminal Delete function key on programming terminal Do not disturb

Table 2.1.2.2 Abbreviations in Part 2 (con.)

No.	Abbreviation	Meaning
D	DSS DSLD-M DSP	Direct station select (key) LCD Unit for DSS-M Display key
	DT	Dial tone
	DTEL DTMF	Key telephone with display (EX-824/1648D or EX-824/1648DN) Dual-tone multifrequency
E	ENTER EXT	Enter function key on programming terminal
	E&ML	Extension (EX824/1648K, D, KN, DN, and single-line telephone) E & M tie-line
	EQU	Equate function key on programming terminal
	E-HOLD	Exclusive hold
F	FEAT	Feature key
	FLSH FLT	Flash key
	FLTn	Floating COL Group Access key Floating COL Group Direct Access key
	FRL	Forward forced release key on attendant console
	FWD	Call forward (key)
	FX	Foreign exchange
G	GRPn	Group n key on attendant console
Н	HNTn	Direct master group hunt key
1	ICM	Intercom line (key)
	ICU	Integrated control unit
	INCR ITCT	Increment function key on programming terminal
	ITEM	Intercept tone
		Item function key on programming terminal
K	KT	Key telephone (EX-824/1648K, D, KN, DN)
	KTEL	Key telephone without display (EX-824/1648K, KN)
L	LCD	Liquid-crystal display
	LED	Light-emitting diode
	LK	Line key (central office line key, intercom line key)
M	MIC	Microphone
	MOH MSG	Music on hold
	IVIOU	Message (key)



No.	Abbreviation	Meaning
N	NEXT	Next function key on programming terminal
	NUM	Number function key on programming terminal
	NIGHT	Night mode key on attendant console
0	ОРТ	Optimized Call Routing Access Key
	OVR	Override key on attendant console
Р	PAGE	Direct paging key
	PARK	Call Park key
	PBX	Private branch exchange
	PGM	Program function key on attendant console (programming terminal
	PROV-M1	DSS Programming Overlay-Sheet-M1
	PRB	Privacy release burst
	PULSE	Dial Pulse
	P-UP	Pickup key
R	RBT	Ring-back tone
	RCL	Recall (key on attendant console)
	RCV	DTMF dial receiver
	RGT	Ringing tone
	RLS	Release key on attendant console
S	scc	Specialized common carrier
	SCDR	Station call detail recorder
	SECR	Secretarial hot-line key
	SER	Serial key on attendant console
	SLT	Single-line telephone
	SPD	Speed dialing (key)
	SPDn	Direct speed Dial Access key
,	SPKR	Speaker (key)
	SRL	Station forced release key on attendant console
	S-HOLD	System hold
Т	TCL	Tone call
	TGL	Toggle key
	TRAN	Transfer key
-	TRK	Trunk
	TT	Transfer tone
υ	UNA	Universal night assignment

Table 2.1.2.2 Abbreviations in Part 2 (con.)

No.	Abbreviation		
	745510411011	Meaning	
V	VCB VCL VP VS	Voice call burst Voice call Versa Phone Voice synthesizer	
W	WATS WT	Wide-area telecommunications service Warning tone	
Z	ZONE n	Direct Zone Call key	

2.1.3 Operation Symbols

The following symbols are used in this manual for describing system operations:

(1) Dial or sender

Example: 9 means dial number 9.

 1^{-7} means one of dial numbers 1 through 7.

Hook

Example: means on-hook operation.

means on-hook state.

means off-hook operation.

F means off-hook state.

means flashing switchhook. (only for SLT)

(3) Key and lamp (see Table 2.2.2.3.1 Visual Indications)

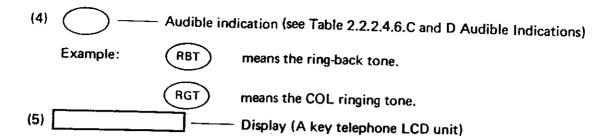
Example: means depressing a key.

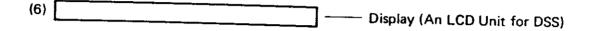
means the CO 1 key for "I-Use".

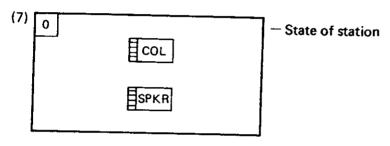
ICM means the intercom key for incoming calls.

FEAT means the feature key for any indication. (initial state)

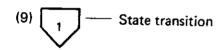
MSG means the message key for any indication (initial state)











Errata (5)

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL



PART 2 Section 2.2

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
2.2- 11	(Condition column) 4, 5 from top	Off-hook		M
	(Number Plan column) 6 to 8 from top	FEAT • 9 d, • d ₃₂ • (di: Dial Code)	FEAT 9 d1 d32 . (di: Dial Code)	m
	(Number Plan column) 3 from bottom	FEAT 5 N ₁ N ₂ (n ₁ , n ₂ : Call Park Orbit Number)	FEAT • 5	m
2.2- 19	(Condition column)	Conditions	Conditions	М
		Off-hook A Idle, Ext. 20 Only	Off-hook A Idle,	
		Off-hook A idle, Ext. 20 Only	Off-hook A Idle,	
		Off-hook a Idle, Ext. 20 Only	Off-hook A Idle,	
		Off-hook A Idle Ext. 20 Only	Off-hook A Idle	

Errata ⑤ PART 2 Section 2.2

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
2.2· 43	(ICM column) 5 from bottom	Busy ICM that is not available.		M
2.2- 50	9 from top	(Caller EXT No.)	(Caller EXT No.) Call From (21)	M
2.2- 52	Bottom line added		2.2.2.3.4.17 Absence Message When a station with Absence Message assignment is called, the following appears on the display. Absence MSG 20	M
2.2- 56	7 from top	31 0 Talking Trunk Number CO 17	Conversing on CO 17	М

M: Major correction m: Minor correction

Page: 2.2-35

Line: Figure 2.2.2.2.E

Remarks: M

(Original)



(Correction)



Errata 5 PART 2 Section 2.2

M: Major correction m: Minor correction

Page: 2.2-59

Line: 3 to 4 from bottom (conversing Trunk No column)

Remarks: M

(Original)

Conversing on Conversing on

(Correction)

Page: 2.2-60

Line: Bottom line (Station forced release column)

Remarks: M

(Original)

(Correction)

< EXT <u>20</u>> Lock Out

< E X T _2 0 > Station Locked Out

M: Major correction m: Minor correction

Page: 2.2-62

Line: System Constants column, Item 4

Remarks: M

(Original)

(Correction)

4	Hold	Recall	Time	(s e c o n d s)

	4	Ηο	1	đ	R	С	L	т	ŧ	m	•	۰	u	t	(1	•	c	0	•	d	1)
1											_	_											_

Page: 2.2-62

Line: System Constants column, Item 11, 12

Remarks: M

(Original)

(Correction)

11	< T N T	<u>A</u> >	0 + e 1	٠,	•	*	τ	r		n	\$	•	•	r
12	< T N T	<u>A</u> ,>	0	١.	0	*	т	ŗ	8	n	•	f	•	r

11	< A T T	< <u>ت</u> >	0 •	• 1	ł	۰	•	T	,	•	n	5	1	•	r
12	< A T T	< <u>ث</u>	0 •	4 f	ı	۰	w	T	ę	•	٨	1	f	•	•

Page: 2.2-67

Line: Toll Restriction column, Item 2, 3

Remarks: M

(Original)

(Correction)

2	< P_1 C1_>	TOL [0]-[2 1)- <u>(0 1</u>)-(0	(Exception Table #) 0.5 - [1.1] - [0.7] - [1.3]	2	2 < P 1 - C 1 > TO L 0 - 2 1 - 0 1 - 0 5 - 1 1 - 0 7 - 1 3
3	< E x c + p t i c	o n <u>1</u> ,- <u>1</u> ,>	Toll	1 2 3 4,- 0 1,-0 3,	3	3 < D T & L. 1, - 1, > T o (1 2 3 4, - (0 1, - (0 3

Errata (5) PART 2 Section 2.2

M: Major correction

m: Minor correction

Page: 2.2-70

Line: Station class of service column, Item 7

Remarks: M

(Original)

Original			

Class Attribution

(Correction)

7	7 . Messege	Attribution

Page: 2.2-72

Line: Clock and Calender column, Item 3

Remarks: M

(Original)

.____

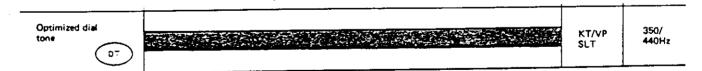
(Correction)



Page: 2.2-79

Line: Bottom line added

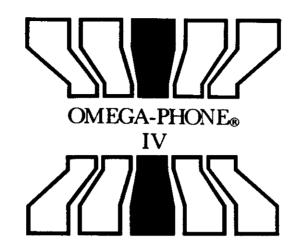
Remarks: M



TEXT 6 (SEC. 2.3)

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM

INSTRUCTION MANUAL



2.2 SYSTEM OVERVIEW

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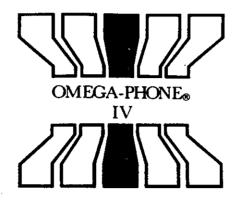
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2.2 SYSTEM OVERVIEW

2.2.1 Softwares of EX-1232/2464

2.2.1.1 Physical Configuration

The system softwares of EX-1232/2464 are packed in 14 ROMs on M/KCPU-ME. Their configuration is shown below.

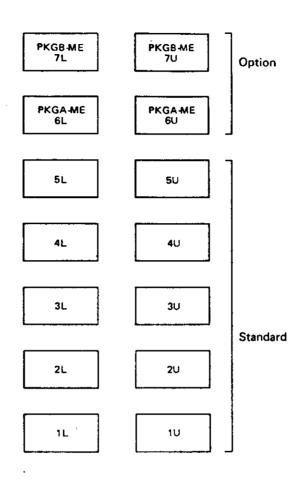


Figure 2.2.1.1 Physical Configuration of EX-1232/2464 System Software

The standard ROMs are initially mounted. The optional ROMs can be freely combined with an exceptions. (See 2.2.1.2 Logical Configuration)

2.2.1.2 Logical Configuration

System software consists of five packages: one standard package, and packages A to C. Table 2.2.1.2 outlines the feature packages.

Table 2.2.1.2 Software Packages and Their Features

Package	Features	Note
A	Toll Restriction Optimized Call Routing Access Floating COL Group Access E&M Tie Line Access Calculator System Data Printout	Option
В	Voice Message Waiting Reminder Absence Message Night Automatic Answering Voice Mail Electronic Mail (Text Mail) Remote Programming	Option

2.2.1.3 Feature Reference Table

The relationship between features and hardware is shown in the following tables:

Symbols x: available

: necessary

Note: The following cards are necessary:

- (a) CTRK-ME if COL is used.
- (b) SUBK-ME if key telephone is used.
- (c) SUBS-ME or SUBS-ME1 if single-line telephone (PULSE) is used.
- (d) SUBS-ME, AUXC-ME and RECV-ME if single-line telephone (DTMF dial) is used.

No.	Feature	Tr	unk		Sı	ation	. "	ı	ture kage	Hardware
		COL	ICM	КТ	VP	SLT	ATTND	A	8	Hardware
A-1	Attendant Call Priority						X			DSS-M/N, DSBF-ME
A-2	Attendant Dedicated ICM Line		х				X			DSS-M/N, DSBF-ME
A -3	Attendant DSS Calling		Х				x			DSS-M/N, DSBF-ME
A-4	Attendant Intercept	×					: X			DSS-M/N, DSBF-ME
A .5	Attendant Recall	x		_			Х			DSS-M/N, DSBF-ME
A-6	Attendant · Serial Call	х					x		-	DSS-M/N, DSBF-ME
A-7	Attendant · Chain Call		х				х			DSS-M/N, DSBF-ME
A-8	Attendant · Call Release	х	х		-		X		···-	DSS-M/N, DSBF-ME
A-9	Attendant · Through Dialing	x		X	×		х			DSS-M/N, DSBF-ME
A-10	Attendant · Overflow Transfer	×	×				×		-	DSS-M/N, DSBF-ME
A-11	Attendant · Dual Attendant						X			DSS-M/N, DSBF-ME
A-12	Attendant - Trunk Forced Release	×	×				×			DSS-M/N, DSBF-ME, DSLD-M
A-13	Attendant - Station Forced Release						×			DSS-M, DSBF-ME, DSLD-M
A-14	Attendant • Call Forward Forced Release						×			DSS-M/N, DSBF-ME, DSLD-M
A-15	Attendant • Call Forward • Busy Call Forward Forced Release						×	-		DSS-M/N, DSBF-ME, DSLD-M
A-16	Automatic COL Release	х	į	х	Х	Х	х			
A-17	Automatic ICM Termination		х	Х	х			· ·		
A-18	Automatic Line Answer	х	X	×	×	. <u> </u>	<u>,</u>	· <u></u>		
A-19	Automatic Trunk/Station Release	х	x	×	х	Х				
B-1	Back Ground Music			×	х					External BGM souse
B-2	Busy Lamp Field						×			DSS-M/N, DSBF-ME, DSLD-M1
C-1	Calculator			Х				\Q		EX-824/1648 D/DN

1

No.	Feature	Tr	unk		St	ation			ture kage	Hardware
		COL	ICM	кт	VP	SLT	ATTND	A	В	1
C-2	Call Abbreviation	х	X	×	Х				İ	
C-3	Call Back Queuing COL	х		X	Х		; }			
C-4	Call Back Queuing ICM (Automatic Call Back)		×	×	×	×	:			
C-5	Call Forward	х	Х	X	Х	×	i		:	:
C-6	Call Forward - Busy Call Forward	х	Х	×	х	X				
C-7	Call Monitor	Х	х	х	х				· ·	
C-8	Call Park	х		X	Х	X	×			
C -9	Call Park • Call Park Pickup	х		Х	Х	Х	Х		:	
C-10	Call Park • Call Split	х		X	Х	! X			:	
C-11	Call Pick Up Group	x	•	X	X	Х	:			
C-12	Camp On • COL Camp On	×		×	×	X	:		:	
C-13	Camp On • ICM Camp On		Х	X	X	Х			!	
C-14	Camp On • Pick Up	х	Х	Х	Х	Х	;			
C-15	Camp On • Recall	х		×	Х	X			:	
C-16	Clock Adjustment						×		:	DSS-M/N, DSEE-ME, DSLD-M
C-17	COL Se ection	х		X	Х	X			:	
C-18	Conference • Add On Conference	X	Х	X	Х	×		i		
C-19	Conference • Automatic Add On	×			-	:	. X			DSS-M/N, DSEF-ME
C-20	Conference • Conference Hold	X	Х	×	x	X	· · · · · ·			
C-21	Conference • Multi Line Conference	X		х	×	X				CONF-ME
C-22	Conference - Trunk to Trunk Conference	x		Х	×	×				CONF-ME
C-23	Conference • Conference Camp On		Х	X	×	. X	•		-	
D-1	Direct Call Pick Up	×	Х	X	X	х	i		· · · · · · · · · · · · · · · · · · ·	

No	Feature		runk —			Station	_		ature kage	
		со	L ICI	N K	T V	SLT	ATTND	——	В	Hardware
D-2	Direct COL - Assignment	×		X	×		+			
D-3	Disconnect	×	X	X	x	×	X		-	IDES MAN DODE ME
D-4	Display Mode Change		+-	×	+-				-	(DSS-M/N, DSBF-ME
D-5	Do Not Disturb	×	×	×	×	+	 	- <u>-</u>		EX-824/1648 D/DN
D-6	Do Not Disturb - Forced Release						x			DSS-M/N, DSBF-ME, DSLD-M
E-1	Electronic Mail			+	+-	 - -			\Q	
E -2	Equal Access Dialing	×	+	+ <u>x</u>	×	X	╂			DG1, MDRS-ME
E-3	E/M Tie Line Service	×	+-	X	X	$\frac{1}{x}$.	
F-1	Flash (Dial Tone Reorder)	×	X	X	X	 ^		0		EMTK-ME
F-2	Flexible Key Assignment		-	X	X	 	×	~		
F-3	Floating COL Group Access	×	-	X	X	x		0		
F-4	Follow Me	x	×	x	x	X Only DTMF				
H-1	Hands-free Stations (Built-in Speakerphone)	-	×	х						SSPU-M/N/NS/RN1
⊣ ∙2	Exclusive Hold	×	×	х	x	х		-		
4-3	System Ho a	×		×	×				_	
1-4	Consultation Hold	+	X	X	Х	Х			\dashv	
H-5	Consultation Hold Recall		×	X	X	X		_	_	
1-6	Automatic ∃c·d	×	×	×	×	^	×	-		
1-7	Music On Hald	×	_	x	×	x			_	(DSS-M N, DSBF-ME)
1-8	Hold Reca'	×	×	×	×	×		-+	-	
1-9	Ring Back Tore On Hold	×						_	_	
1	ICM Calling + Calling Mode Change	1-+	×	×	×					
2	ICM Calling + Hands-Free Answer	1 - 1	×	×	×	\longrightarrow			-	HFAB-R (only VP)

No.	Feature	Tri	unk		St	ation			ture kage	
	-	COL	ICM	КТ	VP	SLT	ATTND	A	В	·
1-3	ICM Calling • Establishment of ICM Calling Method		×	×	×	х				
1-4	ICM Path Termination	1	х	×	×	Х	×			
1-5	Incoming COL Call	×		x	x	Х				
M-1	Master Group Hunt Call		×	X	×	х				
M-2	Meet Me		×	х	x	х				
M-3	Message · Absence Message		×	×	х				♦	VSCU-M
M-4	Message · Memo of Call		х	×	х					
M-5	Message • Message Waiting		x	х	×	х				EX-824/1648 D, DN
M-6	Message · Night Automatic Answer	x						•	\(\)	VSCU-M
M-7	Message · Reminder			×	x				 	VSCU-M
M-8	Message · Voice Message Waiting		×	×	×				\Q	VSCU-M
M-9	Microphone Cut Off			x	x					ļ.
M-10	Multi Level Toll Restriction	X		x	х	х		 \tau \tau \tau \tau \tau \tau \tau \tau		:
N-1	Night Service	x		x	х	х				
N-2	Night Service • Switch Night Mode						х			
N-3	Night S∈∿ice • Night Relay				X	nly Tena	ant A)			
N-4	Night Service • Automatic Night Assign	×			х	x	х			
N-5	Night Service • Universal Night Assign	x				x				
N-6	Night S∈∿ice + Universal Night Assign Fick Up	×				×				
0-1	On-hock Dialing	×	×	×	x					
0.2	Optimized Call Routing	х		×	х	х		♦		
0-3	Options Equipments • Station Hard Hearing Handset/Station Noise Canceling Handset			x	x					SHHD, SHHA-M SNHD

No.	Feature	Tr	unk		S1	tation			ture kage	Hardware
		COL	ICM	кт	VP	SLT	ATTND	Α	В	- Haidware
0.4	Handset Adapter			×						SHSA·M
0-5	External Station Loud Ringer	Х		×				· · ·	†	SRNG-M
0-6	External Alarm Signal	х	:							LRAD-ME External foud ringer
0-7	Outgoing Address Signal Outpulsing	x		×	х	х		-		
8-0	Outgoing Restriction	х		×	х	х			! !	
0-9	Overriding · Busy Override		х				х		 	DSS-M/N, DSBF-ME
0-10	Overriding · Do Not Disturb Override		х				х			DSS-M/N, DSBF-ME
0-11	Overriding - Executive Override	x.	х	Х	х					
0-12	Overriding · Call Waiting		x	X	х	х				
P-1	Paging Call • All Call With Meet Me		X	Х	х	х				
P-2	Paging Call • All Zone Call With Meet Me		×	х	x	х				
P-3	Paging Call • All Group Call With Meet Me		×	×	x	×		:		
P-4	Paging Call - Zone Call With Meet Me		х	x	x	x				
P-5	Paging Call • Group Call With Meet Me		×	×	х	x				
P-6	Paging Call • Attendant Paging Call With Meet Me		x			· . <u>-</u> .	х	<u> </u>		
P-7	Pick Up Restriction	Х	· :	х	х	Х				
P-8	Preselection	Х	X	x	x			i	-	
P-9	Prime Station	X		×	х	x				
P-10	Privacy	х	×	x	х		-+			
P-11	Private Line	x		x	х	×				
P-12	Private Line - Automatic Answering	Х		×	x					VSCU-M

No.	Feature	Tru	ınk	!	Sı	ation			iture kage	Hardware
		COL	ICM	кт	VP	SLT	ATTND	A	В	- Holaware
P-13	Programming • System Programming Termina!						×			DSS-M/N, DSBF-ME, DSLD-M, PROV-M1
P-14	Programming • Dynamic Programming		:				×			DSS-M/N, DSBF-ME, DSLD-M, PROV-M1
P-15	Programming • Programming COL Lines	×	:	x	×	×				:
P-16	Programming - Programming From KT/VP			×	×				:	1
P-17	Programming · Remote Programming								Ç	DG-1, MDRS-ME
Q-1	Quick Mode Operation			×	х		х		; i	
R-1	Redialing	×		×	×				1	
S-1	SCDR	х		×	×	х	ş 1			SCDR-M, Printer
S-2	Secretarial Hot Line Termination		X	; x	×		:		:	
S-3	Sender Time Out	X		Х	х	х				
S-4	Soft Ringer	Х	Х	×	x			1		:
\$-5	Speed Diating	x		×	X	х				: :
S-6	Station Class of Service			X	×	х				
S-7	Station Lock Out		!	X	×				i	
S-8	System =: arm Indications		:				!			
S-9	System in tialization			:						
T-1	Tenant Service	×	×	х	×		×			
T-2	Timed Trunk Queuing	×		×	X					
T.3	Transfer	×	×	×	×	×				
V-1	Voice Va	×	X	×	x				\Q	EX-VML1, VMIF-ME

The key operation on KT/VP are listed in the following table. However, the Calculator and Display feature are applied only on KT with display.

	Feature	Conditions	Number Plan
Automatic ICM , Termination	Automatic ICM Termination	O ⁻⁴ -hook v SPKR On	[key]
BGM	BGM On	Off-hook	FEAT • 6
	BGM Off	Off-hook ∧ Idle	FEAT 0 6
Calculator	Calculator Only for KT With Display		FEAT HOLD
	Calculator		CALC
	COL Call Back Queuing Registration	O~-hook ^ BT	FEAT 9 d, d, di: Dial Code)
Call Back Queuing	COL Call Back Queuing Cancellation	Off-hook A Idle	FEAT 0 9
	ICM Automatic Call Back Registration	ICM BT	FEAT • 7
	ICM Automatic Call Back Cancellation	C ^{-f} -hook ∧ Idle	FEAT 0 7
Call Forward	Call Forward Registration	C-f-hook A Idle	FWD IN IN (nn: Destination Ext. No.)
	Call Forward Cancellation	Cff-hook A idle	FWD []
	Call Forward Activation/Inactivation	P⊕gistration On ∧ On-hook ∧ SPKR Off	FWD
	Busy Call Forward Registration	C f-hook ∧ Idle	FWD n n
	Busy Call Forward Cancellation	C≒-hook ∧ Idle	FWO [].
	Busy Call Forward Activation/ Inactivation	Fegistration On ∧ On-hook SPKR Off	[FWD]
	Call Monitor	Conversation With Handset A SPKR Off	SPKR []:
Car Monitor	Call Monitor	Conversation With Speaker Phone	Mic SW Off
	Call Monitor Cancellation	Conversation ∧ SPKR On	□ †
	Call Park	CDL Conversation	PARK
Da!! Park	Call Park Pick Up	: C∺-hook	PARK
	Remote Call Park Retrieve	C -hook	FEAT • 5
	Call Split	Call Park ∧ ICM/COL Conversation	PARK
lar Pickup Group	Call Pickup Group	C≕-hook ∠ Idle	FEAT : 3

			+: Can be abbreviated			
	Feature	Conditions	Number Plan			
	Camp On	COL/ICM Conversation	TRN (ICM Call Operation)			
Camp On	Camp On	COL/ICM Conversation	TRN (ICM Call Operation) SPKR (: On)			
	Camp On Pick Up	(Off-hook v SPKR On) A Idle	FEAT • 4 n n (nn: Camp On Called EXT No.)			
	COL Selection	Off-hook v SPKR On	COL			
COL Selection	COL Selection	On-hook A SPKR Off	COL []†			
	COL Selection	On-hook A SPKR Off	COL SPKR			
	Add On Conference from COL Conversation	COL Conversation	ADD (ICM Calling Operation) (Called Party Answer) ADD			
	Add On Conference From COL Conference	COL CONF	ADD (ICM Calling Operation) (Called Party Answer) ADD			
	Add On Conference From Conference Hold	Off-hook v SPKR ON	COL			
	Add On Conference From Conference Hold	On-hook ∧ SPKR Off	COL []†			
	Add On Conference From Conference Hold	On-hook A SPKR Off	COL SPKR			
	Add On Conference by Executive KT/VP	Off-hook v SPKR On	COL			
Conference	Add On Conference by Executive KT/VP	Off-hook A SPKR Off	COL []†			
	Add On Conference by Executive KT/VP	Off-hook A SPKR Off	COL SPKR			
	ICM Add On Conference From ICM Conversation	ICM Conversation	ADD (ICM Calling Operation) (Called Party Answer) ADD			
	ICM Add On Conference From ICM Conference	ICM CONF	ADD (ICM Calling Operation) (Called Party Answer) ADD			
	COL Conference Hold	COL Conference	HDLD OND			
	COL Conference Hold	COL Conference	COL (: COL during a call)			
	COL Conference Hold Pick Up	Off-hook v SPKR On	COL			
	COL Conference Hold Pick Up	On-hook A SPKR Off	COL []†			
			·············			

IWATSU EX-1232/2464

	Feature	Conditions	Number Plan
	COL Conference Hold Pick Up	On-hook A SPKR Off	COL SPKR
	ICM Conference Hold	ICM Conference	HOLD
	ICM Conference Hold	ICM Conference	ICM
	ICM Conference Hold Pick Up	Off-hook v SPKR On	(ICM)
	ICM Conference Hold Pick Up	On-hook A SPKR Off	ICM []†
	ICM Conference Hold Pick Up	On-hook A SPKR Off	ICM SPKR
	Multi-Line Conference	COL Conversation With COL E-Hold	ADD
	Trunk to Trunk Conference	Multi-Line Conference	HOLD DND
	Trunk to Trunk Conference Access	Off-hook A SPKR On	COL (: COL indicating I-USE)
	Trunk to Trunk Conference Access	On-hook A SPKR Off	COL +[]† (SPKR)
	Conference Camp On	ICM Conference Conversation	TRN (ICM Call Operation)].
	Conference Camp On	ICM Conference Conversation	TRN (ICM Call Operation) SPKR (:SPKR On)
Direct Call Pickup	Direct Call Pickup	(Off-hook v SPKR On) A Idle	FEAT + 4 n n (nn: Called EXT No.)
	COL/ICM Disconnect	Off-hook & SPKR Off	Ωŧ
	COL/ICM Disconnect	Off-hook A SPKR On	SPKR
Disconnect	COL Disconnect	COL Conversation	ICM
	COL Disconnect	COL Conversation	COL (Other COL)
	ICM Disconnect	ICM Conversation	COL
-	Display Mode Change	Off-hook	FEAT FWD
Display Mode Change	Display Mode Change Only for KT With Display	Off-hook	DSP
Do Not Disturb Registration	Activation	On-hook A SPKR Off A DND Off	MOLD DND
	nactivation	On-hook A SPKR Off A DND On	MÓLD DND
	Equal Access Dialing (with pin code)	After COL Access	FEAT • N • (0≦n≦€
qual Access Dialing	Equal Access Dialing (without pin code)	After COL Access	FEAT • n
	Equal Access Dialing (not presubscribed)	After COL Access	10 ××× + (1) + 7/10 digits
	Equal Access Dialing (presubscribed)	After COL Access	1 + 7/10 digits
	Equal Access Dialing (cut	After COL Access	10 ×××+# PIN - (1) - 7/10 digns

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	Feature	Conditions	Number Plan		
FLASH	With CO Access	After COL Originating or Conversation	FLSH		
Dial Tone Reorder	With ICM Access	After ICM Originating, Calling, or Conversation	FLSH		
	Floating Direct COL Group Access	Off-hook	FLTn		
Floating	Optimised Call Routing Access	Off-hook	OPT n_1 b_2 n_r (nn: Destination Customer number)		
.	Floating COL Group Access	Off-hook	g=0: Optimized Call Routing g=1~7: COL Group No nn: Destination Customer number		
Follow Me	Follow Me	Off-hook ∧ idle	FWD # n n (nn: Call Forward activating EXT No.)		
	Activate Speakerphone	Preselection	SPKR		
	Activate Speakerphone	On-hook	SPKR COL /ICM		
Hands Free Stations	Activate Speakerphone	COL/ICM Conversation	SPKR [] [
	Activate Speakerphone	Call Monitor	Mic SW On		
	Inactivate Speakerphone (When switching to call monitor)	Speakerphone Activate	Mic SW Off		
	Inactivate Speaker phone (When switching to handset talk)	Speaker phone Activate	O t		
	Exclusive Hold (COL)	COL Conversation	COL (: COL during a care)		
Holding	Exclusive Hold Pick Up (COL)	Off-hook v SPKR On	COL		
Holding	Exclusive Hold Pick Up (COL)	On-hook ∧ SPRK Off	COL []†		
	Exclusive Hold Pick Up (COL)	On-hook ∧ SPKR Off	COL SPKR		

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	Feature	Conditions	•: Can be abbreviate
	Exclusive Hold (ICM)	ICM Conversation	AOLD DVD
	Exclusive Hold Pick Up (ICM)	Off-hook v SPKR On	[ICM]
	Exclusive Hold Pick Up (ICM)	On-hook A SPKR Off	ICM []1
	Exclusive Hold Pick Up (ICM)	On-hook A SPKR Off	ICM SPKR
	System Hold	COL Conversation	DND HOLD
	System Hold Pick Up	Off-hook v SPKR On	COL
	System Hold Pick Up	On-hook A SPKR Off	COL D†
	System Hold Pick Up	On-hook A SPKR Off	COL SPKR
	Consultation Hold	ICM Conversation	ADD
	Consultation Hold	ICM Conversation	TRN
	Consultation Hold Pick Up	Off-hook v SPKR On With Consultation Hold	ADD
	Consultation Hold Recall	Off-hook v SPKR On With Consultation Hold Recall	ADD
	Consultation Hold Recall	Off-hook v SPKR On With Consultation Hold Recall	ICM
	Automatic COL Hold by Paging	COL Conversation	PAGE (ALL, ALL GRP, ALL ZONE, GRP 1 to 4, ZONE 1 to 3)
	Automatic COL Hold by Transfer	COL Conversation	TRN
	Automatic COL Hold by Add On	COL Conversation	IADD
	KT/VP Automatic COL HOLD by Automatic ICM Hold	COL Conversation	DSS
CM Carling	Calling Mode Change	ICM DT	n n (nn: Destination extension number)
	Calling Mode Change	ICM Calling	The state of

	•: Can be abbreviat		
	Feature	Conditions	Number Plan
	Master Group Hunt Call (Group 1)	DT	8 7 0
	Master Group Hunt Call (Group 2)	ΤO	8 7 1
	Master Group Hunt Call (Group 3)	DT	8 7 2
	Master Group Hunt Call (Group 4)	ОТ	8 7 3
Master Group Hunt Call	Direct Master Group Hunt Call (Group 1)	DT ∨ (On-hook ∧ S=<= Off)	[HNT ₀]
	Direct Master Group Hunt Call (Group 2)	DT ∨ (On-hook ∧ S=<∃ Off)	[НИТ.]
	Direct Master Group Hunt Call (Group 3)	DT v (On-hook ^ S=<= Off)	[HNT]
	Direct Master Group Hunt Call (Group 4)	DT ∨ (On-hook ∧ S=≺= Off)	[HNT]
Meet Me	Meet Me	Off-hook ∧ Idle	FEAT • 2 In In (nn: Paging station number)
	Absence Message (Return Time)	Off-hook ∧ Idie	FEAT MSG 2 H H M M (HHMM: Time)
	Absence Message (Return Day)	Off-hook ∧ idle	FEAT MSG 3 W (w: Day of Week 0 to 7)
	Absence Message (Latch Return Time)	Off-hook ∧ idle	FEAT MSG 4 H H: M M (HHMM: Time)
Message	Absence Message (Meeting Return Time)	Off-hook ∧ Idle	FEAT MSG 5 H H M M (HHMM: Time)
	Absence Message (Telephone Number)	Off-hook A Idle	FEAT MSG 6 d1 d16 • (d: Dial Code)
	Absence Message Cancellation	Off-hook ∧ Idle	FEAT D MSG 2-6
	Message Waiting Resistration	ICM Calling v BT	MSG #

	→: Can be abb			
	Feature	Conditions	Number Plan	
	Message Waiting Access	(Off-hook ∨ SPKR On) ∧ Idle	MSG	
	Message Waiting Cancellation	Off-hook ^ Idle	FEAT 0 MSG 7 n n (nn: Destination EXT. No.)	
	Night Automatic Answering	ldle	FEAT MSG 8 I I d In n ₁₆ • (II: COL No. 01 to 24, d: Day Code. 0 to 8, n: Emergency Dial Code)	
	Night Automatic Answering Cancellation	Off-hook ∧ idle	FEAT 0 MSG 8 1 1 (II: COL No. 01 to 24)	
	Reminder Registration	Off-hook ∧ Idle	FEAT MSG 1 H H M M (HHMM: Time, w: Day of Weel	
	Reminder Cancellation	Off-hook ∧ Idle	FEAT 0 MSG 1	
	Voice Message Waiting Registration	ICM Celling A BT	FEAT MSG 7 H H M	
	Voice Message Waiting Access	Off-hook v SPKR On	MSG	
	Voice Message Waiting Cancellation	Off-hook ∧ Idle	FEAT 0 MSG 7 n n (nn: Destination EXT. No.)	
Night Service	Universal Night Assignment Pick Up	Off-hook v SPKR On	FEAT +4 +9 -9	
	On-hook Dialing (ICM)	On-hook A SPKR Off	SPKR ICM	
On-hook Dialing	On-hook Dialing (ICM)	On-hook A SPKR Off	ICM within 10s' SPKR	
On-nook braning	On-hook Dialing (COL)	On-hook A SPKR Off	SPKR COL	
	On-hook Dialing (GOL)	On-hook A SPKR Off	COL within 10s' SPKR	
	Executive COL Monitor	Off-hook v SPKR On	COL	
Overriding	Executive COL Manitor	On-hook A SPKR Off	COL [].	
	Executive COL Monitor	On-hook A SPKR Off	COL SPKR	
	All Call	DT	8 8 0	
Pagina Call	All Call	Off-hook v SPKR On v COL Conversation	ALL	
Paging Call	All Call	Off-hook v SPKR On v COL Conversation	PAGE (Press and Talk)	
	All Zone	DT	8 8 4	

	Feature	Conditions	Number Plan
	All Zone	Off-hook v SPKR On v COL Conversation	ALLZONE
	All Group	DT	8 8 5
	All Group	Off-hook v SPKR On v COL Conversation	ALL GRP
	Zone Call (Zone Speaker 1	Off-hook v SPKR On v COL Conversation	ZONE
	Zone Call (Zone Speaker 1	DT	8 8 1
	Zone Call (Zone Speaker 2	Off-hook v SPKR On v COL Conversation	ZONE 2
	Zone Call (Zone Speaker 2	DT	B B 2
	Zone Call (Zone Speaker 3	Off-hook v SPKR On v COL Conversation	ZONE 3
	Zone Call (Zone Speaker 3	DT	8 B 3
	(ICM) Group Call (Group 1	Off-hook v SPKR On v COL Conversation	GRP
	(ICM) Group Call (Group 2:	DT	8 8 6
	(ICM) Group Call (Group 3	Off-hook v SPKR On v COL Conversation	GRP 2
	(ICM) Group Call (Group 4	DT	8 8 7
	(ICM) Group Call (Group 1	Off-hook v SPKR On v COL Conversation	GRP
	(ICM) Group Call (Group 2	DT	8 8 8
	(ICM) Group Call (Group 3	Off-hook v SPKR On v COL Conversation	GRP 4
	(ICM) Group Call (Group 4	DT	8 8 9
	Preselection (ICM)	On-hook A SPKR Off	ICM / FLT
reselem th	Preselection (COL)	On-hook A SPKR Off	COL /FLT
	Privacy Release/Restore	COL Conversation	FEAT 1
frivac.	Privacy Released COL Pick Up	Off-hook v SPKR On	COL
	Privacy Released COL Pick Up	On-hook A SPKR Off	COT [].
	Privacy Released COL Pick Lo	On-hook A SPKR Off	COL SPKR

	Feature	Conditions	Number Plan
	Programming From KT/VP (to Night Mode)	Off-hook - Idle,	FEAT 8 .
	Programming From KT/VP (to Day Mode)	Off-hook Idle,	FEAT B
Programming	Programming From KT/VP (Clock)	Off-hook · Idle,	FEAT 8 1 H M M (HHMM: Time)
	Programming From KT/VP (Calendar)	Off-hook · Idle	FEAT 8 2 Y. Y2 M1 M2 D1 D2 W (Y1Y2: Year, M1M2: Month D1D2: Day, W: Day of Week
	Redialing Save	With COL Conversation	FEAT #
Rediatio	Redialing Access	With COL DT	FEAT = #
Rediailg	Redialing Access	Off-hook - SPKR On	(Quick Operation: When floating)
SCDR	Account Code Input	COL Conversation	FEAT 0 d1 d6 • =
	Direct Speed Dialing	COL DT - COL Conversation	[SPDn]
	Direct Speed Dialing	On-hook and Speaker Off	SPDn
Speed Dialing	Station Speed Dial Registration	Off-hook · Idle	FEAT • n n· c· d· ε (nn: SPD No. d: Diat Code)
	Speed Dial Access (1st Time)	With COL DT	FEAT = • n n n (nn: SPD No.)
	Speed Dial Access (2nd Time)	l With COL Originating	FEAT • n n
	Station Lock Out (Personal ID Code: Registration)	Off-book - Idle	FEAT 8 5 P. P2 P3 P4 P5 P6 P: Persona D Coce (0≦Pi≦9)
Station Lock Out	Station Lock Out_	Off-book - Idle	FEAT 8 3 F. P₂ P₃ P: Personal ID Code, ○≦Pi≦9
	Station Lock Out Release	Off-hook - Idle	FEAT 8 4 ₹ ₽. ₽. ₽. P2 P2 P2 P2 P3
Timed Trunk Queuing	Registration	COL Conversation	FEAT 9
	Jancellation	Off-hook - Idle	FEAT 0 9

	•: Can be abbreve		
	Feature	Conditions	Number Plan
Transfer	Transfer	COL/ICM Conversation	TRN (ICM Operation) (Called Party Answer)
	Transfer	COL/ICM Conversation	TRN (ICM Operation) (Called Party Answer)
	Transfer	COL/ICM Conversation	[DSS] (ICM Operation) (Called Party Answer)
	Transfer	COL/ICM Conversation	DSS (ICM Operation) (Called Party Answer) [] SPKR

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2,2,1.5 Specialized Number Plan

Key operations on an DTMF-SLT and PULSE-SLT are shown in the Table 2.2.1.5.1 and Table 2.2.15.2.

Table 2.2.1.5.1 DTMF-SLT Dial Operation

			e: Can be abbreviated
	Features	Conditions	Dial
ICM Automatic Call Back	Registration	ICM BT	141 7
ICM Automatic Can Sack	Cancellation	ICM Automatic Calf Back On	(рт) 🗧 🗿 🗇
(Busy) Call Forward	Registration	DΤ	I E IN IN (nn: Deschation station No.)
	Cancellation	(Busy) Call Forward On	(DT) 1 0 5
	Call Park	COL Conversation Without COL Hold	11 C 1 9
	Own-station Call Park pick up	Idle with COL Hold & Call Park On	(DT) : 9
Call Park	Call Park Pickup when Called station is SLT	Off-hook with COL Hold & Call Park On	(DT) E 9 n. n ₂ (nn: Ca - Park Orbit No.)
	Call Split	COL Conversation With Call Park Hold	↓↑ (C ⁻] 9;
	Call Pickup Group	With Incomming Call in the Group	(DT) [3
	COL Camp On	COL Conversation	1 † (DT ICM Call Operation + []
Camp On	ICM Camp On	ICM Conversation	‡ † (DT∞ ICM Call Operation = 🗓 ‡
	Camp On Pickup	DT	(nn: Came On Called Station No.)
	COL Selection	DT	9 r (0≦n≦7)
	Add On Conference	COL Conversation or COL Conference	↓↑ (DT & COL CONF Hold: ICM Call Operation - Called Party Answer *
	Add On Conference	ICM Conversation or ICM Conference	C ↑ ROT & ROM CONF Hold: ICM Call Operation — Called Party Answer — 1.1
	COL Conference Hold	COL Conference	11
Conference	ICM Conference Hold	ICM Conference	.1
	COL Conference Hold Pickup	With COL Conference Hold	(DT) <u> </u>
	ICM Conference Hold Pickup	Off hook With ICM Conference Hold	Û; + . ·
	Multi-Line Conference	COL Conversation With COL Hold	.1 07 1 [
	Trunk To Trunk Conference	Multi-line Conference	.1

	Features	Conditions	Dial	
	Conference Camp On	ICM Conference	1 † (DT) ICM Call Operation –	
	Diai Tone Reorder	After ICM Originating	11	
·	Direct Call Pickup	DT	1 4 n n nn: Called station No.	
Disconnect	COL/ICM Disconnect	COL/ICM Conversation	□ţ	
	Equal Access	After COL Access With PIN code	• n • 9 m 0≤n≦9 1≦m≦7 (COL Group No.)	
	Equal Access	After COL Access Without PIN code	• n # 9 m 0≦n≦9 1≤m≦7 (COL Group No.)	
Equal Access	Equal Access (Manual Dial)	After COL Access	10xxx + (1) + 7/10 digits (Not presubscribed)	
	Equal Access (Manual Dial)	After COL Access	1 + 7/10 digits (Presubscribed)	
	Equal Access (Manual Dial)	After COL Access	10xxx# + PIN + (1) + 7/10 digits (Cut through)	
Floating CO:	Optimized Call Routing Access	DT	9 0 n ₁ n _r nn: Destination Customer No.	
Group Access	Floating CO Group Access	DT	g g n, n, nn: Destination Customer No. g: COL Group No. (1 to 7)	
	Follow Me	DT	1 5 # n n nn: Call Forward activating EXT. No.	
	Exclusive Hold	COL Conversation	1 1	
	Exclusive Hold Pickup	With Exclusive Hold	(10)	
Holding	Consultation Hold	ICM/COL Conversation	↓ ↑	
-	Consultation Hold Pickup	Off hook With Consultation Hold	1 †	
	Consultation Hold Recall Pickup	Off hook With Consultation Hold Recall	↓ 1	
	Consultation Hold Recall Pickup	On hook With Consultation Hold Recall	D †	
CM Carea	ICM Calling	DT	n n (nn: Called station No	
CM Calling	ICN Calling Mode Change	ICM Calling	#	

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	Features	Conditions	Dial
	Group 1	DT	8 7 0
Master Group	Group 2	DT	8 7 1
Hunt Call	Group 3	DT	8 7 2
	Group 4	та	8 7 3
	Meet Me	DT	1 2 n n (nn: Paging station No.)
	Registration	tCM Catling or BT	↑↓ (DT) 1 6
Message Waiting	Cancellation	DT	1 0 6 n n (nn: destination station No.)
Night Service	Universal Night Assignment Pick Up	DT	9 9
	All Call With Meet Me	Seizing ICM Line	(DT) 8 8 (TC)
	Zone Call With Meet Me (Zone 1)	Seizing ICM Line	(DT) 8 8 1
	Zone Call With Meet Me (Zone 2)	Seizing ICM Line	(DT) 8 8 2
	Zone Call With Meet Me (Zone 3)	Seizing ICM Line	(DT) 8 8 3
	All Zone Call With Meet Me	Seizing ICM Line	(DT) 8 8 4
	All Group Call With Meet Me	Seizing ICM Line	(DT) 8 8 5
Paging Call	(CM Group Call With Meet Me (Group 1)	Seizing ICM Line	(DT) 8 8 G
	ICM Group Call With Meet Me (Group 2)	Seizing ICM Line	(от) 8 8 7
	CM Group Call With Meet Me Group 3)	Seizing ICM Line	(DT) 8 8 8
	:CM Group Call With Meet Me Group 4)	Seizing ICM Line	(TO)
·	Rediating	DT	#
SCDR	Account Code Input	COL Conversation	↓↑ (DT) 1 B n₁ n ₆ • • (n: Account Code) Up to 6 digits
System/station Speed Dialing	Station Speed Dial Registration	DT	1 • n n d; d ₁₆ (nn: SPD No. 90 to 99) (dn: Dial)

	Features	Conditions	Dial
System/station Speed Dialing	System Speed Dial Access	DT	• n n g m (nn: SPD No. 0 to 89; COL Group No. (m: 0 to 7)
	Station Speed Dial Access	DT	
	Transfer	COL/ICM Conversation	↓↑ (DT) ICM Call Operation + Called Party Answer + □↓

Table 2.2.1.5.2 PULSE-SLT Dial Operation

•;	Can	bе	abbreviated	
_				

			+: Can be abbreviated	
	Features	Conditions	Dial	
ICM Automatic Call Back	Registration	ICM BT	†↓ 1	
	Cancellation	ICM Automatic Call Back On	(DT) 1 0 7	
(Busy- Call Forward	Registration	(10)	1 5 n n (nn: Destination station No.)	
	Cancellation	(Busy) Call Forward On	(DT) 1 0 5	
Call Fark	Call Park	COL Conversation Without COL Hold	i† (DT) 1 9	
	Own-station Call Park On Pickup	Idle With COL Hold & Call Park On	(ОТ) 1 9	
	Called station is SLT	Off-hook With COL Hold & Call Park On	(DT) 8 9 n n (nn: Call Park Orbit No.)	
	Call Split	COL Conversation With Call Park Hold	1 † (DT) 1 9	
	Call Pickup Group	With Incomming Call in the Group	(DT) 1 3	
Camz On	COL Camp On	COL Conversation	1 † (DT) ICM Call Operation +	
	ICM Camp On	ICM Conversation	↓ ↑ (DT) ICM Call Operation + []↓	
	Camp On Pickup	(DT)	1 4 n n (nn: Camp On Called station No.)	
	COL Selection	(DT)	9 ∩ (1≦n≨7)	
Confere≏ce 	Add On Conference	COL Conversation or COL Conference	† † (DT & COL CONF Hold) ICM Call Operation + Called Party Answer + . †	
	Add On Conference	fCM Conversation or ICM Conference	† † (DT & ICM CONF Hold) ICM Call Operation + Called Party Answer + , †	
	COL Conference Hold	COL Conference	↓ ↑	
	ICM Conference Hold	ICM Conference	↓ ↑	
	COL Conference Hold Pickup	With COL Conference Hold	(DT) 1 1	

	Features	Conditions	Dial
	ICM Conference Hold Pickup	Off hook With ICM Conference Hold	[]† + ‡ †
	Multi-Line Conference	COL Conversation With COL Hold	↓↑ (OT) 1 1
	Trunk To Trunk Conference	Multi-line Conference	↓ ↑
	Conference Camp On	ICM Conference	↓↑ (DT) ICM Call Operation + []↓
	Dial Tone Reorder	After ICM Originating	11
	Direct Call Pickup	DT	1 4 n n nn: Called station No
Disconnect	COL/ICM Disconnect	COL/ICM Conversation	Ot
Floating COL Group Access	Optimized Call Routing Access	DT	9 0 n ₁ n _r nn: Destination Customer No.
	Floating CO Group Access	DT	g g n ₁ n ₁ nn: Destination Customer No. g: COL Group No. (1 to 7)
	Exclusive Hold	COL Conversation	↓ ↑
	Exclusive Hold Pickup	With Exclusive Hold	(DT) 1 1
Holding	Consultation Hold	ICM/COL Conversation	11
riolaling	Consultation Hold Pickup	Off-hook With Consultation Hold	↓ ↑
	Consultation Hold Recall Pickup	Off-hook With Consultation Hold Recall	11
	Consultation Hold Recall Pickup	On-hook With Consultation Hold Recall	D 1
ICM Calling	ICM Calling	DT	n n (nn: Called station No.)
	ICM Calling Mode Change	ICM Calling	2
M aster Group Hunt Call	Group 1	DT	8 7 0
	Group 2	DT	871
	Group 3	DT	8 7 2
	Group 4	DT	8 7 3
	Meet Me	DT	1 2 n n (nn: Paging station No.)
Message Waiting	Registration	ICM Calling or BT	1 (10) [] [6]

	Features	Conditions	Dial
Message Waiting	Cancellation	DT	1 0 5 n n (nn: Dest ration station No.)
Night Service	Universal Night Assignment Pick Up	DT	9 9
Paging Cati	All Call With Meet Me	Seizing ICM Line	(DT) 8 2 0
	Zone Call With Meet Me (Zone 1)	Seizing ICM Line	(DT) 8 3 1
	Zone Call With Meet Me (Zone 2)	Seizing ICM Line	(DT) B 8 2
	Zone Call With Meet Me (Zone 3)	Seizing ICM Line	(DT) 8 8 3
	All Zone Call With Meet Me	Seizing ICM Line	(DT) 8 8 4
	All Group Call With Meet Me	Seizing ICM Line	(DT) 8 8 5
	ICM Group Call With Meet Me (Group 1)	Seizing ICM Line	(DT) B 8 6
	ICM Group Call With Meet Me (Group 2)	Seizing ICM Line	(DT) 8 8 7
	ICM Group Call With Meet Me (Group 3)	Seizing ICM Line	(DT) 8 8 8
	ICM Group Call With Meet Me (Group 4)	Seizing ICM Line	(DT) 8 8 9 (TG)
	Redialing	DT	9 8
SCDR	Account Code Input	COL Conversation	↓ ↑ (DT) : 8 n₁ n₁ε (n: Account Code)
	Transfer	COL/ICM Conversation	† (DT::CM Call Operation + Callec Party Answer + []

2.2.1.6 Numbering Plan

The numbering plan for the system is shown in the Table 2.2.1.6.

Table 2.2.1.6 System Dialing Plan

Feature	Dial	Note	
	0	Only One ATTND in Tenant	
Operator Call	01	ATTND1	
	02	ATTND2	
Station Call	20 to 83		
Master Group Hunt Call	870 to 873		
	880	All Call	
	881 to 883	Zone Call	
Paging Call	884	All Zone Call	
	885	All Group Call	
	886 to 889	Group Call	
Optimized Call Routing Access	90	(Only SLT)	
Floating COL Group Access	91 to 97	(Only SLT)	
Redialing	98	(Only PULSE-SLT)	
UNA Pick Up	99	(Only SLT)	

2.2.2 EX-1232/2464 System Configuration

2.2.2.1 Hardware Configuration

The EX-1232/2464 system consists of the following hardware units.

- CICU
 - COL interface: max. 24, ICM 8, subscriber interface: max. 64, VS, SCDR interface, etc.
- C KT/VP

The total number together with single-line telephones: 64 or less being able to be increased by 4.

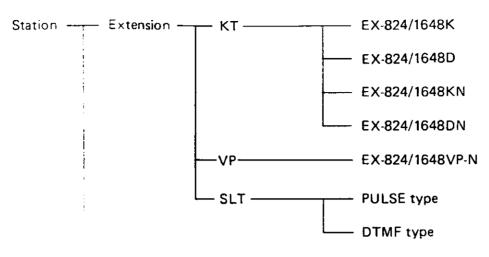
- Single-line telephone
 - The total number together with key telephones: 64 or less being able to be increased by 4.
- c ATTND
 - Up to two units can be connected to one system.
- SCDR
 - One unit can be connected to one system.
- C BLF
 - Up to four units can be connected to one system.

2.2.2.2 Terminal Configuration

The following terminals are connected to the EX-1232/2464 system.

- EX-824/1648 Key Telephone (EX-824/1648K, KN)
- © EX-824/1648 Key Telephone with Display (EX-824/1648D, DN)
- © EX-824/1648 Versa Phone (EX-824/1648 VP-N)
- Single Line Telephone (PULSE)
- Single Line Telephone (DTMF)
- EX-Direct Station Selection-M, N (DSS-M, N)
- © EX-Busy Lamp Field Unit-M (BLF-M)

The names of these terminals and their classifications are shown below.



- Attendant (DSS-N with KT/VP)
- Programming Terminal (DSS-M or DSS-N with DSLD-M and PROV-M1)

BLF-M

External views of the individual terminals are shown in the following figures:

Figure 2.2.2.2B EX-824/1648D

Figure 2.2.2.2.C EX-824/1648KN

Figure 2.2.2.2.D EX-824/1648DN

Figure 2.2.2.2.E EX-824/1648VP-N

Figure 2.2.2.F BLF-M

Figure 2.2.2.2.G DSS-M with DSLD-M

Figure 2.2.2.2.H DSS-N with DSLD-M

Figure 2.2.2.2.I DSS-M with DSLD-M and PROV-M1

Figure 2.2.2.2.J DSS-N with DSLD-M and PROV-M1



Figure 2.2.2.2.A EX-824/1648K



Figure 2.2.2.2.B EX-824/1648D



Figure 2.2.2.2.C EX-824/1648KN



Figure 2.2.2.2.D EX-824/1648DN



Figure 2.2.2.2.E EX-824/1648VPN

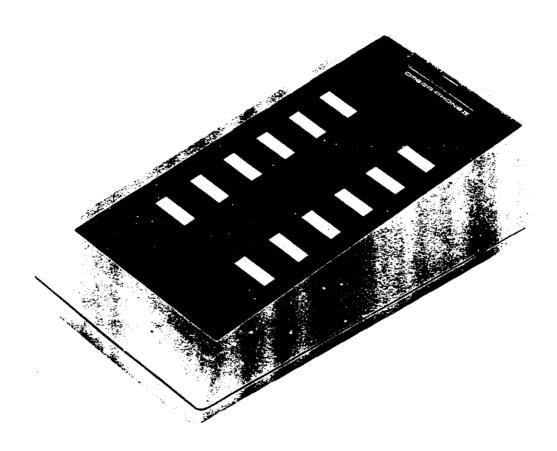


Figure 2.2.2.F BLF-M

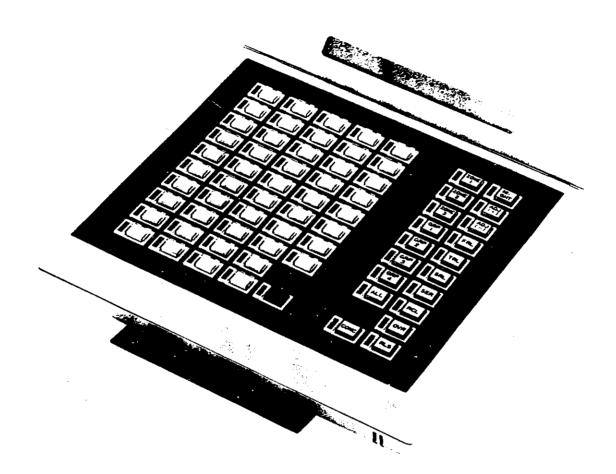


Figure 2.2.2.2.G DSS-M With DSLD-M

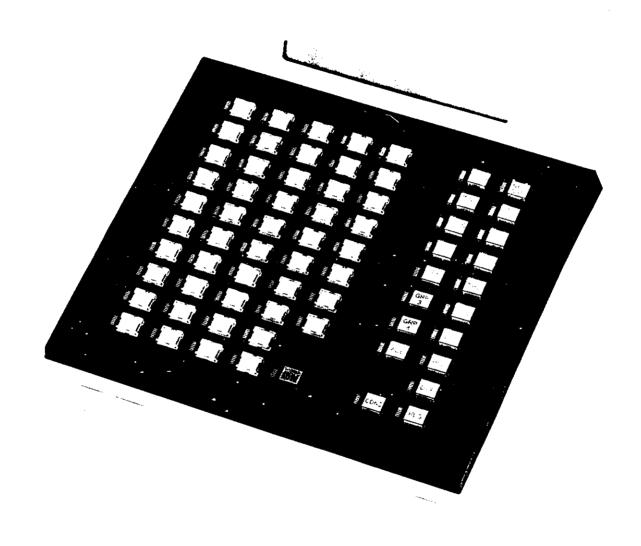


Figure 2.2.2.2.H DSS-N With DSLD-M

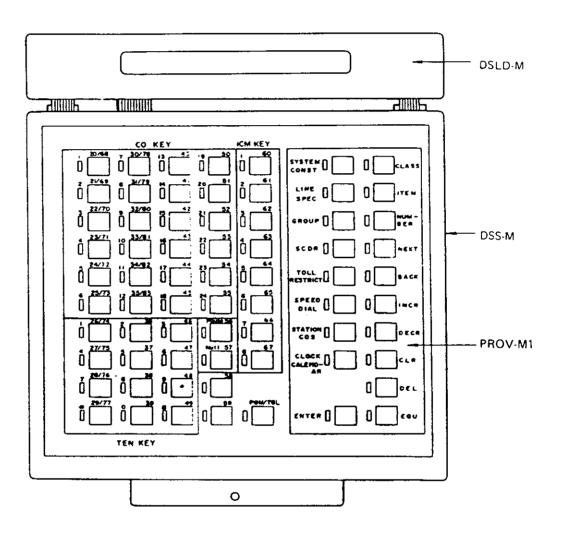


Figure 2.2.2.2.1 DSS-M With DSLD-M and PROV-M1

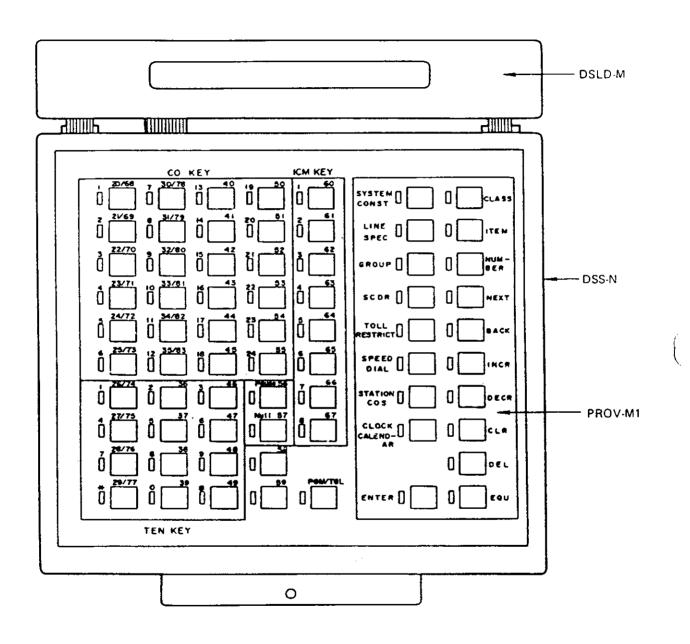


Figure 2.2.2.2.J DSS-N With DSLD-M and PROV-M1

IWATSU EX-1232/2464

2.2.2.3 Visual Indications

Visual indication functions of terminals are as shown below.

- 2,2,2,3,1 KT/VP Key Lamp
- 2.2.2.3.2 Visual Indications of Trunks
- 2.2.2.3.3 Busy Lamp Field
- 2.2.2.3.4 Key Telephone Display
- 2.2.2.3.5 Attendant Display
- 2.2.2.3.6 Terminal Display for Programming

2.2.2.3.1 Key Telephone and Versa Phone Key Lamp

Visual indications given by key telephones and Versa Phone are shown in Table 2.2.2.3.1.

Table 2.2.2.3.1 Visual Indications

		Operation/Lamp		Р	attern	
No.	Use	Indication	0.5 s	0.5 s	0.5 s	0.5 s
1	I-Use TRAN CDA	Key Name	0.05 0.05	nn.	mm	MML
2	Caliback MSG waiting Camp On Hold recall ICM incoming Camp On recall			ww	1,1 s	
3 :	COL incoming				0.4 s	
4	System hold Non privacy		0.4 s		1.6 s	4. % 3
5	DND Page busy Line busy Absence message Call Forward					
6	:c ∈ (off)					
7	Voice massege waiting I-Hold			1.1 s	www	·
8	Programming class		C	0.95 s	05 s	0.95 s

2.2.2.3.2 Visual Indications of Trunks

Visual indications on key lamps of KTs/VPs to indicate COL/ICM status are as listed below.

Table 2.2.2.3.2 Visual Indications of Trunks

Trunk	Visual Indications	Note
	Idle	COL not used or can not be used.
	Busy	Used by another station. Cannot be seized from the KT/VP. (Refer to 2.3.0.6.3 Executive Override.)
	System Hold	On System-hold by another KT/VP.
COL	Incoming	Incoming call.
	Hold Recall	Hold Recall or Camp On Recall is ringing.
	I-Hold	COL held at the KT/VP, one COL of multi-line Conference, or COL in Trunk to Trunk Conference.
	i-Use	COL that is used by the KT/VP.
	Idle	ICM that is available.
1014	Incoming	ICM call ringing.
ICM	Hold Recall	ICM Hold Recall ringing.
	I-Use	Engaged on an ICM call.
	i-Hold	ICM call placed on-hold.

2.2.2.3.3 BLF

Visual indications given by BLF are shown in Table 2.2.2.3.3.

Table 2.2.2.3.3 Visual Indications of BLF

			Patt	tern	
No.	Use	0.5 s	0.5 s	0.5 s	0.5 s
1	Forced release	1.0	5 s	0.05 s 0.05 s	MML
2	DND	0.05 s 0.05 s			
3	Camp On		1.2 s	0.4 s	0.4 s
4	Conversing Incoming				
5	Hessage waiting	0.05 s 0.05 s		1.05 s	
6	Others				

2.2.2.3.4 Key Telephone Display

Key telephone alphanumeric display are shown in Figures 2.2.2.3.4.A and B.

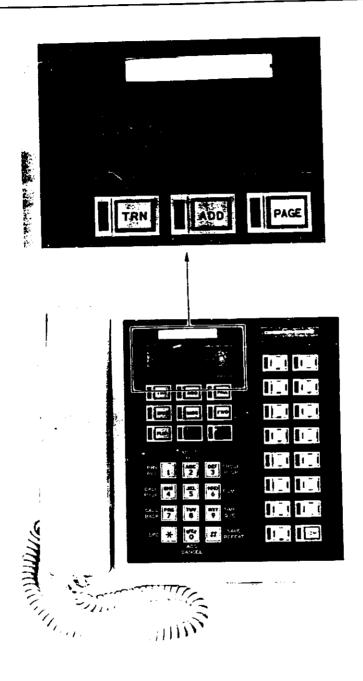


Figure 2.2.2.3.4.A Telephone Alphanumeric Display

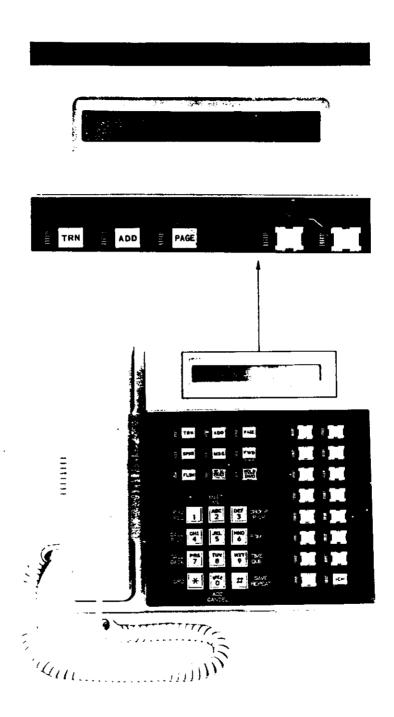


Figure 2.2.2.3.4.B Telephone Alphanumeric Display

((

KT display unit displays five levels as listed below.

Class	Contents
1	Clock & Calendar
2	Incoming Call
3	Duration of Call
4	Dial Number
5	Calculator/Electronic Mail

The key telephone has a 16-digit alphanumeric display for receiving various services.

2.2.2.3.4.1 Account Code

When Account Code is entered during a COL call, the content is displayed. The display remains for 10 seconds after input is complete.

2.2.2.3.4.2 Transfer

When a COL call is transferred by various means, the transfer originating station number is displayed at the answering KT. Display appear in the following cases:

- i) ICM Voice/Tone Call: Station that originated the (Busy) Call Forward
- ii) ICM Camp On: Station that originated the Camp-On
- iii) COL RGT: Station that originated the (Busy) Call Forward
- iv) COL Camp On: Station that originated the Camp-On
- v) COL Camp On Recall: Camp-On called station

2.2.2.3.4.3 COL Outgoing Dial

The dial number sent to the COL is displayed during COL call. Display shifts from the right to the left end while dialing. A dial number with invisible attribution is not displayed.

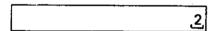
(Automatic pause is displayed as '-'.)

2.2.2.3.4.4 COL Call (Duration)

Duration of a COL Call is displayed while engaged. Maximum display is up to 99 minutes 59 seconds.

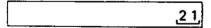
2.2.2.3.4.5 ICM Dial

The first digit of the dialed number is displayed while originating an ICM call.



2.2.2.3.4.6 ICM Calling

The called station No. is displayed while the ICM call is engaged.



2.2.2.3.4.7 ICM Calling (Forward)

The called station number is displayed followed by the station number originating the (Busy) Call Forward.

2.2.2.3.4.8 Station Busy

The dialed number is displayed when the called station is busy and the display remains for 10 seconds, except in case the called station is engaged on an Attendant or Override call.

2.2.2.3.4.9 Station Busy (Forward)

When (Busy) Call Forward is performed during ICM call and the destination station is busy, the called station number is displayed followed by the station number originating the (Busy) Call Forward. The display remains for 10 seconds except in case the called station is engaged on an override call.

2.2.2.3.4.10 Station Do-Not-Disturb

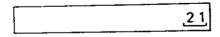
During an ICM Call, if the called station is set to Do-Not-Disturb, the station number is displayed for 10 seconds.

2.2.2.3.4.11 Station Do-Not-Disturb (Forward)

When (Busy) Call Forward is performed during an ICM call, the called number is displayed followed by the station number originating the (Busy) Call Forward.

2.2.2.3.4.12 ICM Call

The called station number is displayed during an ICM call.



2.2.2.3.4.13 Registration

The dial number is displayed when dial input is required for registration such as Station Speed Dial, Call Forward, etc.

2.2.2.3.4.14 COL/ICM Call

When there are more than one COL or ICM calls, the one with the highest priority is displayed. The format is as follows:

i) ICM Voice/Tone Call

ii) ICM Voice/Tone Call (Forward)

iii) Consultation Hold Recall

iv) COL Hold Recall

v) COL Camp-On Recall

V COL Callback

vii) COL Incoming

viii) COL Incoming (Forward)

ix) COL Camp-On

x) ICM Hold Recall

xi) ICM Callback

xiii) ICM Camp-On

EX-1232/2464 (MATSU

2.2.2.3.4.15 Message

When messages are received, they are displayed in sequence of priority.

2.2.2.3.4.16 Clock and Calendar

Clock and calendar are displayed when no display exists.

2.2.2.3.4.17 Absence Message

When a station with Absence Message assignment is called, the following appears on the display.

2.2.2.3.5 Attendant Display

Attendant alphanumeric displays are shown in Figures 2.2.2.3.5.A and B.

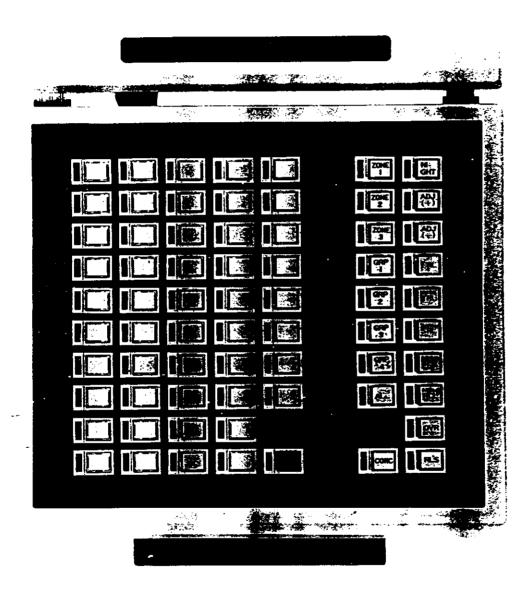


Figure 2.2.2.3.5.A DSS-M and DSLD-M

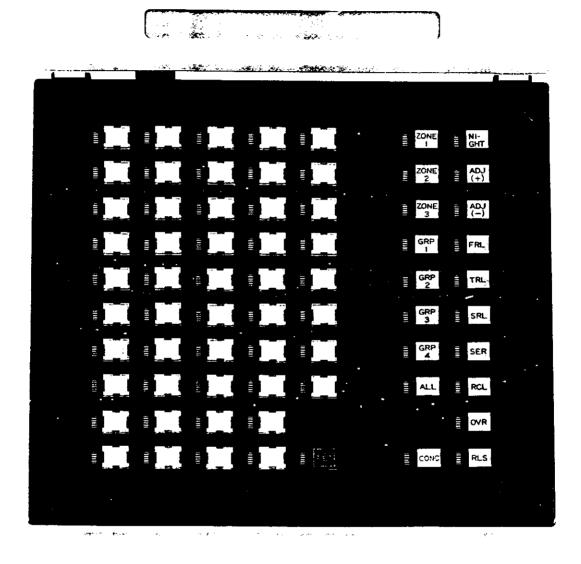


Figure 2.2.2.3.5.B DSS-N and DSLD-M

A 32-digit display is available by connecting an Alphanumeric Display (DSLD-M) unit connected to the Attendant station. (Refer to Table 2.2.2.3.5.12 Attendant Alphanumeric Display.)

2.2.2.3.5.1 Clock and Calendar

When no other display exists on the Attendant display, the clock and calendar is displayed.

Display

2,2,2,3,5,2 Through Dialing

When an Attendant answers an ICM call, the caller's station number, Toll Class number, and outgoing level are displayed.

(See Section 2.3.A.1.9 Through Dialing.)

■ Condition

The above informations do not appear when either the Programming Feature or Forced Release Feature is displayed.

Display

2.2.2.3.5.3 First-Priority-Call Trunk Number Display

Trunk numbers with the first-priority-call appear at the Attendant display.

■ Condition

- The above information does not appear when any information other than Clock & Calendar or Call Park No Answer is displayed.
- Attendant Recall is not included in the first-priority-call trunk numbers.
- Display

2.2.2.3.5.4 Engaged Trunk Number Display

The trunk number with which the Attendant is engaged is displayed.

Condition

The above information does not appear when either Programming Feature or Forced Release Feature is displayed.

Display

2.2.2.3.5.5 Attendant Call Park Pickup Number Display

When the Attendant places a call on Call Park, the pickup number of the Call Park is displayed. (See Section 2.3.C.6.2 Call Park Pickup.)

Condition

The above informations do not appear when either Programming Feature or Forced Release Feature is displayed.

Display

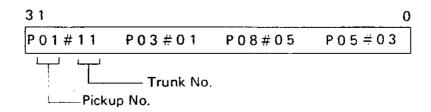
2.2.2.3.5.6 Attendant Call Park No Answer Display

Among the calls placed on Call Park by the Attendant, pickup numbers and trunk numbers of the parked calls, which are not yet picked up, are displayed. (See Section 2.3.C.6.2 Call Park Pickup.)

Condition

- The above informations do not appear when any information other than Clock & Calendar is displayed.
- When there are more than four Call Parks, pickup numbers and trunk numbers of the top four priority Call Parks are displayed.

Display



2.2.2.3.5.7 Attendant Recall

When an Attendant Recall is picked up, such information as the type of the Attendant Recall, trunk number, and station number are displayed. (See Section 2.3.A.1.11 Attendant Recall.)

Condition

- The above informations do not appear when either Programming Feature or Forced Release Feature is displayed.
- Attendant Recalls are classified as follows:
 - Attendant Recall
 - COL Attendant Intercept
 - E&M Attendant Intercept

Display

31						0
ATT	Recall	со	1	Forwar	d From	27
АТТ	Intercept	Νο	Α	nswer	cc) 11
ATT	Intercept	E &	M	Bu	sy EXT	7 28

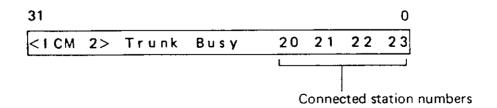
2.2.2.3.5.8 Trunk Forced Release

When the Attendant operates Trunk Forced Release, the trunk status and connected station number is displayed. (See Section 2.3.A.1.12 Trunk Forced Release.)

Conditions

- o The trunk status to be displayed may be any of the following:
 - Idle: Not busy
 - Busy: Engaged on a callReleased: Forced releaseNo trunk: Trunk not installed

Display



2.2.2.3.5.9 Station Forced Release

When the Attendant operates Station Forced Release, the station status is displayed. (See Section 2.3.A.1.13 Station Forced Release.)

Conditions

- o The station status to be displayed may be any of the following:
 - Idle: Not busy
 - Busy: Engaged on a callLock out: Station lock outReleased: Forced release
 - No station: Station not connected
- o If a SUBS-ME circuit card is installed, "No Station" will not be displayed even if no single-line telephone is installed with the card.

Display

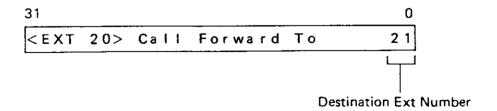
2.2.2.3.5.10 Call Forward/Do-Not-Disturb Forced Release

When the Attendant operates Call Forward Release or DND Forced Release, the Call Forward/DND status of the station is displayed. (See Section 2.3.C.4.2, Call Forward Forced Release, and Section 2.3.D.5.2, Do-Not-Disturb Forced Release.)

Conditions

- o The Call Forward and Do-Not-Disturb status to be displayed may be any of the following:
 - Call Forward
 - Busy Call Forward
 - Do Not Disturb
 - DND and CFWD
 - DND and BCFWD
 - No Station, Released, Station Idle

Display



For System Programming Terminal display, see Section 2.4, Programming Feature.

2.2.2.3.5.12 Attendant Alphanumeric Display

Contents of the Attendant displays for individual features are shown in the following pages.

Table 2.2.2.3.5.12 Attendont Alphanumeric Display

	Display
Condition	31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
-	ATT Recall CO _L 1 Forward From 27
Attendant Recall	ATT Intercept No Answer CO
	ATT Intercept CO _[11] Busy EXT <u>28</u>
Clock & Calendar	(Day) (Month) (Year) (Week) 7 : 4 5 : 1 2 P.M.
Through dialing	< EXT 20 > TOII CLS = 4 / OUTG Level = 2
Prior incoming Call	Incoming Trunk Number CO 13
Trunk NO	Incoming Trunk Number ICM 2
Conversing	Conversing On CO 1
Tunk NO	Conversing On ICM o
Attendant Call Park Pick up NO	ATT Call Paak Pick up NO 0
Attendant Call Park NO Answer	P 0 1 = 1 7 P 0 3 # 1 1 P 0 7 = 0 4 P 0 5 = 0 1

^{* 1} Pick up NO

^{* 2} Trunk NO

Table 2.2.2.3.5.12 Attendant Alphanumeric Display

	Table 2.2.2.0.3.12 Attendant Alphanamore 5 opts
Condition	Display
	31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
	< EXT 20 > Call Forward To (Destination EXT)
	(Destination EXT)
	< EXT <u>20</u> > Do Not Disturb
Call forward	< E X T 20 > D N D & C F W D T o (Destination EXT)
forced release	< E X T 20 > D N D & B C F W D T O (Destination EXT)
	< EXT (20) > NO Extension
	< EXT <u>20</u> , > Released
	< EXT (20) > Extension Idle
	< EXT (20) > Extension Busy
Station forced	< EXT (20,) Released
release	< EXT <u>20</u> > No Extension
	< EXT <u>20</u> , > Extension Idle
	< EXT (20) > Station Locked Out

Table 2.2.2.3.5.12 Attendant Alphanumeric Display (con.)

	Display
Condition	31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
	< CO <u>1</u> > Trunk Idle
	< ICM_1,> Trunk Idle
	< C O 1 > Trunk Busy (Station #) 2 2, 2 0, 2 1
	(Station #) < I C M 1 > Trunk Busy 20, 21, 22, 23
Trunk forced release	< CO _1 > Trunk Released
	< ICM 1 > Trunk Released
	< CO _1 > No Trunk
	< ICM 1 > No Trunk

2.2.2.3.6 Terminal Display for Programming

Contents of the Attendant display, which the Attendant is working as a programming terminal, are shown in the following pages.

Table 2.2.2.3.6 System Programing Terminal Display

Class	144															ſ	Dist	olay	,														
Class	Item	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	•	5 5	4	3	2	1	0
System Constants	1	Н	o	ı	d		Т	i	m	e	0	U	t		(s	е	с	0	n	d	s)		-						<u>1</u> _	3	<u>o</u>
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	3	P	a	g	е		т	i	m	е	0	u	t		(s	e	с	0	n	d	s)					•			2	5	 0;
	4	Н	0	1	d		R	С	L		Т	i	m	е	0	u	t		(s	е	С	0	n	d	s)				_1	6	<u>o</u> ,
	5	С	а	m	р	_	0	n		Т	i	m	e	o	u	t		(s	е	С	o	n	d	s)		•				8	<u>0</u> j
	6	С	а	l	ŧ	b	а	c	k		т	i	m	e	0	u	t		(s	e	с	o	n	d	s)				_1	1	 5_
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	4	s	С	D	R	1	P	r	j	n	t		0	u	t	1	r	า +	С	0	m	i	n	g		С	а	ı	ı			_1
	5	s	С	D	R		P	r	i	n	t		0	u	t	С	a	3	1	ı		w	i	t	h		Α	С	С	D		٥
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Table 2.2.2.3.6 System Programing Terminal Display

		Display
Class	Item	31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Toll Restriction	1	< GRP1 - CLS1 > Toll Restriction 13
	2	(Mode) (Diai Table =)
	3	<pre>< Dial TBL 1 - 1 > Toll 1234 - 01 - 03</pre>
	4	< T N T A - C O D 2 0 0 > E & M A . C o d e .3
	5	< TNT A GRP 1 - COD 200 > E&M 0. GRP 4
	6	< TNT A - COD 200 > Area Code 3
	7	< TNT A - COD 200; > Office Code 4
	8	<tnt 0.="" 211<="" a="" code="" grp="" o="" override="" td=""></tnt>
	9	< C ₁ - Hour _t 00 > Time Schedule 0
	10	< TNT A - ZON1 - ROUT1 > Route 1 - 2 - 3 - 4
	11	<tnt -="" a="" grp1=""> Delete Index 3</tnt>
	12	<tnt a-no1=""> Delete Data 311</tnt>
	13	<tnt -="" [a]="" grp[1]=""> Additional Index 3</tnt>
	14	<pre></pre>

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Class	Item	31	30	29	28	27	26	25	24	23	22	21	20	19	18					13	12	11	10	9	8	7	6	5	4	3	2	1	0
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Table 2.2.2.3.6 System Programing Terminal Display

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2.2.2.4 Audible Indications

Audible indication functions of terminals are as shown below.

- 1. From Key Telephone/Versa Phone Speaker
- 2. From Single-line Telephone Ringer/Handset
- 3. To ATTND/Programming Terminal
- 4. From ICM
- 5. To COL/EXT with COL Conversation
- 6. Priority of Call

Each station of the system can give audible indications.

2.2.2.4.1 Key Telephone/Versa Phone Speaker

The audible indications from key telephone/Versa Phone speakers and their priority order are shown in Table 2.2.2.4.1.A.

Table 2.2.2.4.1.A

Priority	Audible Indication	Notes
1	ICM Voice Call	Involving Voice Call Burst and Intercept Tone
2	Reminder	
3	Consultation Hold Recall	
4	COL Recall	Abbreviated when busy
5	COL Callback	Abbreviated when busy
6	COL RGT (Camp-On)	Abbreviated when busy
7	ICM Hold Recall	Abbreviated when busy
8	ICM Callback	Abbreviated when busy
9	ICM Tone Call (Camp-On)	Prior to Consultation Hold Recall in case of priority call
10	Group Call	

The other audible indications by a key telephone/Versa Phone are shown in Table 2.2.2.4.1.B.

Table 2.2.2.4.1.B

Audible Indication	Notes
Busy Tone	Extension busy, ICM busy, page busy
Warning Tone	Illegal operation
Confirmation Tone	Registration complete

2.2.2.4.2 From Single-Line Telephone Ringer/Handset

The audible indications by the single-line telephone ringer and their priority order are shown in Table 2.2.2.4.2.A

Table 2.2.2.4.2.A

Priority	Audible Indication	Notes
1	Consultation Hold Recall	
2	COL Recall	
3	COL RGT (Camp-On)	
4	ICM Hold Recall	
5	ICM Callback	
6	ICM Tone Call (Camp-On)	Prior to Consultation Hold Recall in case of priority call

The audible indications from the handset of the single-line telephone are shown in Table 2.2.2.4.2.B.

Table 2.2.2.4.2.B

Audible Indication	Notes
Dial Tone	Dial input enable
Busy Tone	Station busy, ICM busy, page busy
Warning Tone	Illegal operation
Confirmation Tone	Registration complete
Camp-On Tone	Indicates Camp-On while engaged

2.2.2.4.3 To ATTND/Programming Terminal

The audible indications to the Attendants and Programming Terminals are shown in Table 2.2.2.4.3.

Table 2.2.2.4.3

Indication	Notes
Attendant Recall	
Confirmation Tone for Attendant	Used in Clock Adjustment, Programming

2.2.2.4.4 From ICM

The audible indications from ICM are shown in Table 2.2.2.4.4.

Table2.2.2.4.4

Audible Indication	Notes
Dial Tone	Dial input enable
Ring-back Tone	ICM Tone Call
Busy Tone	Extension busy, page busy
Transfer Tone	Transfer complete
Add-On Tone	Add-On complete
Voice Call Burst	ICM Voice Call
Busy Bypass Burst	ICM Busy Bypass Voice Call

2.2.2.4.5 To COL/EXT with COL Conversation

The audible indications to a COL and the audible indications to stations busy on a COL are shown in Table 2,2.2,4,5

Table 2.2.2.4.5

Audible Indication	Notes	
Music On Hold	During COL held except recall	
Ring-back Tone	During recall	
Primary Release Burst	Privacy released	
Transfer Tone	Transfer complete	
Add-On Tone	Add-On complete	
Confirmation Tone	Account code accepted, save complete	

2.2,2,4.6 Priority of Call

Call priority and ringing priority are shown in Table 2.2.2.4.6.A.

Table 2.2.2.4.6.A Call Priority

Priority	Explanation	Incoming Call Class
1 .	Calls that can always be received	Consultation Hold Recall COLRGT
2	Calls that can always be received and have call abbreviation	COL Recall COL Callback ICM Hold Recall ICM Callback
3	Calls that can be received only when there is no ICM Voice Call	Reminder
4	Calls that can be received when there are no calls with priority 2, no COL RGT and no prior call with the same priority	ICM Voice Call * ICM Tone Call *
5	Calls that can be received only when there are no calls with priority 1 to 4	Group Call, All Call

^{*} Does not apply to Attendant or Executive. For details, see Section 2.3.1.1, ICM Calling.

Table 2.2.2.4.6.B Priority of Audible Indications

Priority	Incoming Call Class
1	ICM Voice Call, ICM Tone Call with priority *
2	Reminder
3	Consulation Hold Recall
4	COL Recall
5	COL Caliback
6	COL RGT
7	ICM Hold Recall
8	ICM Caliback
9	ICM Tone Call
10	Group Call, All Call

^{*} ICM Tone Call from Executive KT/VP Attendant

Audible indication on the RGT appear on Table 2.2.2.4.6.C.

Table 2.2.2.4.6.C Audible Indication (RGT)

EXT	Classification	Pattern and Symbol			Tone	
	COL RGT	15	COAGT)	Répeat	440/480 Hz	
	ICM tone call ICM camp-on	15	(ICMRGT)	Rebeat	440 Hz	
к	COL caliback	0.2 s	COCBT	Represe	440/480 Hz	
Т /	ICM callback	0.45 0.25	(CMCBT)	Repeat	440 Hz	
V P	COL recall	015	7.5 s CORCL	Roccest	440/480 Hz	
	ICM recall	015	7.5 s (CMRCL)		440 Hz	
	ICM burst	0.00	(VCB)		440 Hz	
-	Intercept tone	0.2 s 0.2 s	(17)	778	A: 620 Hz B: 440 Hz	
s L	COL RGT COL camp-on COL recall	0.4 \$ 0.4 \$ \$	CORGTS) 3 s	Recest	Ringer	
Т	ICM tone call ICM camp-on ICM hold recall ICM call-back	15	ICMPGTS) 3 s	Rezest	Ringer	
A T T N D	fi eca		7.5 s (ATRCL)	##:##:	Buzzer	

Audible indications on the CPT appear on Table 2.2.2.4.6.D.

Table 2.2.2.4.6.D Audible Indications (CPT)

Classification and Sympol	Pattern	Service	Tone
ICM dial tone		ICM SLT	440 Hz
Ring-back tone	3;	COL	440/ 480 Hz
Busy tone	0.5 \$ 0.5 \$	COL ICM KT/VP SLT	480/ 620 Hz
Warning tone	02 035	KT/VP SLT	480/ 620 Hz
Confirmation tone	0.1 s 0.1 s	COL KT/VP SLT	440 Hz
Privacy release burst	0.85	COL	440 Hz
Voice call burst		ICM	440 Hz
Camp-on tone for SLT	0.1 s	SLT	44 0 Hz
Transfer tone	0.15	COL	44 0 Hz
Add-on tone	0.8 s	COL	440/ 480
Confirmation tors	0.1 s	ATTND	Buzzer
Busy Bypess Burst	0.2 \$ 0.2 \$	ICM	440 Hz

Audible indications on the CPT appear on Table 2.2.2.4.6.D.

Table 2.2.2.4.6.D Audible Indications (CPT)

Classification and Symbol	Pattern	Service	Tone
Optimized dia: tone		KT/VP SLT	350/ 440

Contents of messages from the voice synthesizer appear on Table 2.2.2.4.6.E.

Table 2.2.2.4.6.E Voice Message from System

MSG No.	Item	Contents
1	Reminder	~~ [Reminder (Set Time) (Set Day)]
2	Absence message (Return time)	Station (EXT =) I'm out I'll return at [(Return Time)]
3	Absence message (Return day)	Station (EXT =) I'm out [I'll return (Return Day)]
4	Absence message (Lunch return time)	Station (EXT =) I'm out to lunch I'll return at [(Return Time)]
5	Absence message (Meeting return time)	Station (EXT =) I'm in a meeting I'll return at [(Return Time)]
6	Absence message (Telephone No.)	Station (EXT =) I'm out please call [(Telephone No.)]
7	Voice message waiting	Station (Calling EXT =) Please call back at {(Call Back Time)}
8	Night message (Telephone No.)	Hello we're closed today [for emergency please call (Telephone No.)]
9	Night message (Open day)	Hello we're closed today {We'll open (Return Day)}
10	Prompt 1	Enter password
11	Prompt 2	Enter class
12	Prompt 3	Enter data
13	Prompt 4	Enter number
14	Prompt 5	Enter item
15	Prompt 6	Illegal data
16	Prompt 7	Accepted

; burst tone () : variable []: repeat

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2.3.C.4.1.1 Key Telephone/Versa Phone

Operations and conditions above Call Forward with KT/VP are described below.

- Conditions
 - o To perform Call Forward, registration and activation are required.
 - o When Call Forward is activated, the FWD key lamp on the KT/VP lights steadily.

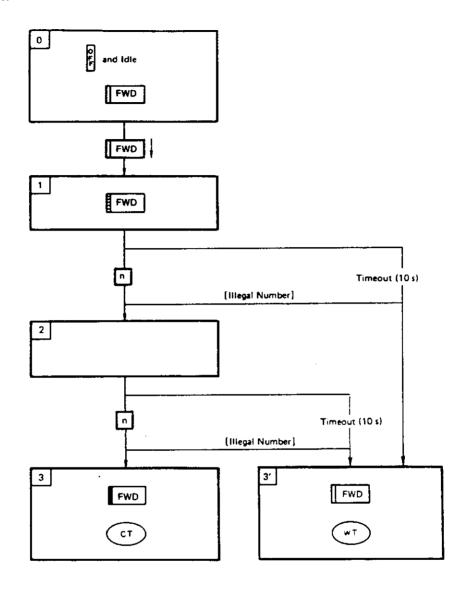
2.3.C.4.1.1.1 Registration

- Conditions
 - o A station user should not register stations of another tenant and uninstalled stations as a destination.
 - o When a station user completes registration, Call Forward automatically goes activated.
- Operation Guide

(nn: Station number of destination)

1.

Operation Flow



2.3.C.4.1.1.2 Cancellation

Conditions

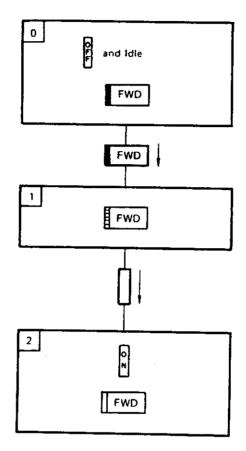
- o If a station user does not complete properly because of off-hook, timeout, illegal number, or depressing of other keys, previous registration (if any) is canceled.
- o Cancellation makes Call Forward inactivated and destination number is cleared.

Operation Guide

(Off-hook and Idle) FWD + || +

UZTAWI

Operation Flow



2.3.C.4.1.1.3 Activation/Inactivation

If a station user completes Call Forward registration, Call Forward goes activated. He may make Call Forward inactivated. He may make it activated again.

Conditions

- o Activation inactivation cannot be performed if not registered.
- o Activation inactivation is same operation that switches the status alternately.
- Operation Guide

(On-hook and SPKR off) FWD

2.3.C.4.1.2 Single-Line Telephone

Operations and conditions about Call Forward with SLT are described below.

C

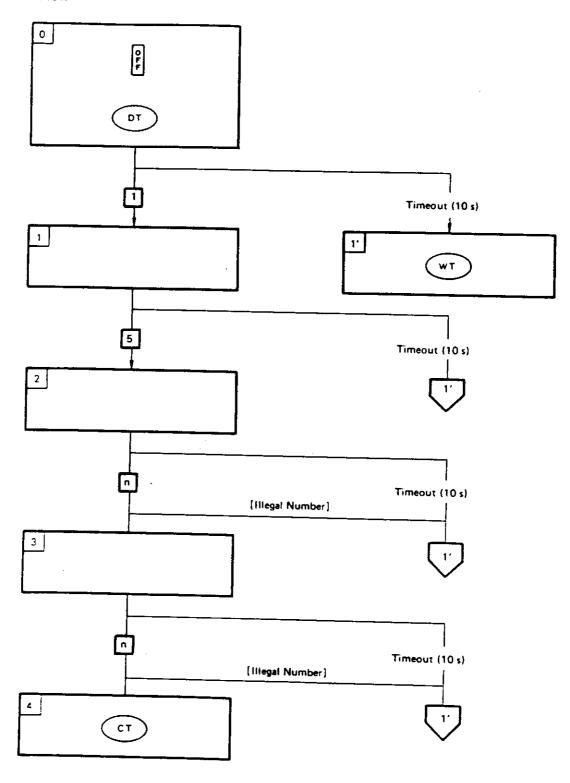
Conditions

o To perform Call Forward, a SLT user should register the destination.

2.3.C.4.1.2.1 Registration

- Condition
 - o A SLT user are not permitted to register station of another tenant and uninstalled station as a destination.
- Operation Guide

(DT) 1 - 5 + n + n nn: Destination EXT No.



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2.3.C.5 Call Monitor

A KT/VP user may utilize call monitor facility while conversing.

Conditions

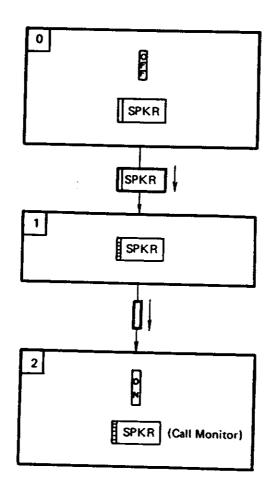
o A KT/VP with speakerphone should have the microphone off to utilize Call Monitor. (See Section 2.3.H.1 Hands Free Stations.)

■ Operation Guide

(Conversation with handset and SPKR off) SPKR + []

(Conversation with Speakerphone) Microphone off

■ Operation Flow



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2.3.C.6 Call Park

While conversing on a COL call in progress, a station user may place it on Hold. Once a call is placed in the "park" condition, any station within the same tenant may retrieve it either by dialing the appropriate access code or by depressing PARK key. This feature is also available for attendant use.

Conditions

- o The Call Park feature is not applicable to ICM conversation.
- o The Call Park feature is classified into the following.
 - 1 Call Park
 - 2 Call Park Pick Up
 - 3 Call Split

2.3.C.6.1.1 Key Telephone/Versa Phone

While conversing on a COL call in progress, a KT/VP user can place it on Hold by depressing PARK key.

C

Conditions

- o When the PARK key is depressed during conversation on a COL, the COL is placed on Call Park and the PARK key indicates I-HOLD indication.
- o A station user is allowed to swap a conversing COL with the COL placed on Call Park. (See Section 2.3.C.6.3 Call Split.)
- o Call Park Recall is made at Hold Timeout. Hold Recall Denied station, however, is not allowed to use the Call Park Recall feature.
- o The Call Park Orbit is assigned to each station.
- o The orbit number is equal to the station number.
- o Any station user is allowed to pick up a Call Park placed by another station user. (See Section 2.3.C.6.2 Call Park Pickup.)
- o No ICM can be placed on Call Park.
- Operation Guide

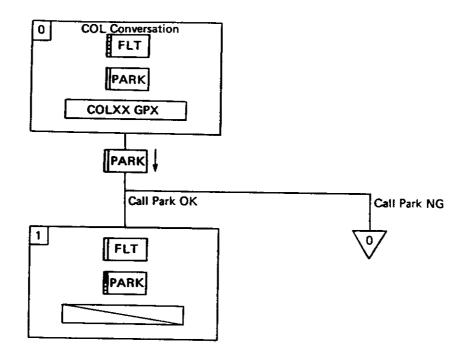
(COL Conversation) PARK

Programming

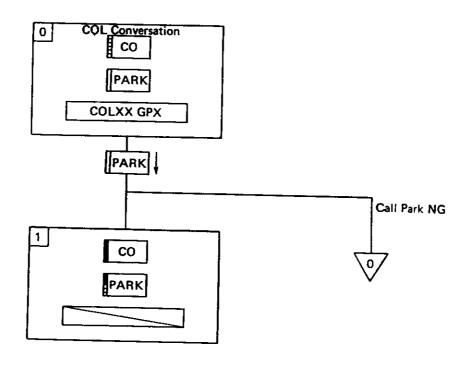
System Constants Item 1
Hold Timeout 10 ~ 255 seconds
Station Class of Service Item 12
Hold Recall Deny

Each EXT—Lit: allow
Blink: deny

i) Conversation With FLT Key



ii) Conversation With COL Key



F.

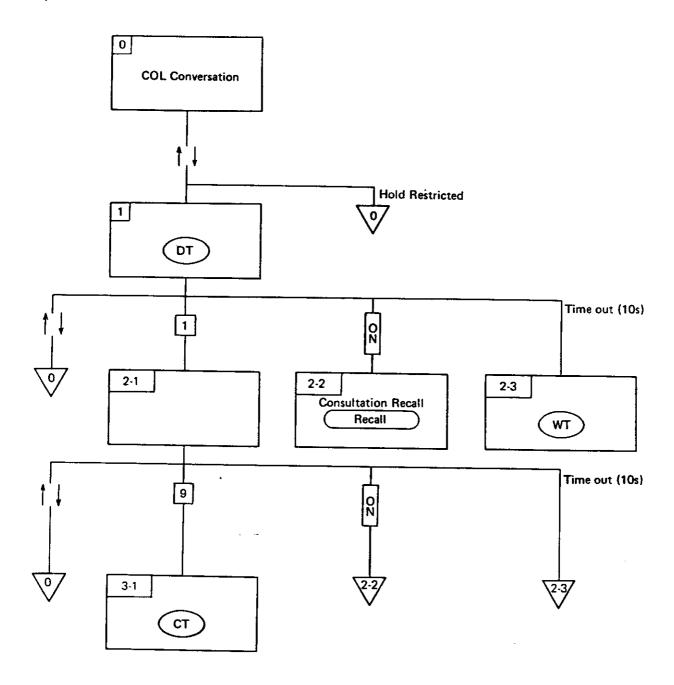
2.3.C.6.1.2 Single Line Telephone

Any SLT user may place a call on Call Park by dialing the appropriate number.

Conditions

- o While conversing in progress, a SLT user may place COL on Call Park by dialing the special number (19).
- o A SLT user is allowed to swap a conversing COL with another COL placed on Call Park. (See Section 2.3.C.6.3 Call Split.)
- o Call Park Recall is made at the Hold Timeout. A Hold Recall Denied station is not allowed to use the Call Park Recall Feature.
- o The Call Park Orbit is assigned to each station.
- o The orbit number is equal to the station number.
- o Any station user is allowed to pick up a Call Park placed by another station. (See Section 2.3.C.6.2) Call Park Pickup.)

(COL or Conversation) $\uparrow \downarrow + \boxed{1} + \boxed{9}$



2.3.C.6.1.3 Attendant

While conversing in progress, the Attendant (ATTND) can automatically place the call on Call Park by depressing the Direct Page Call key.

C

Conditions

- o When Attendant depresses the Direct Page Call key, the Call Park Orbit number is automatically displayed on the ATTND display.
- o Ten Call Park Orbits are assigned to one ATTND.
- o The Call Park Orbit numbers are assigned as follows:
 - 1) 00 to 09:

ATTND 1

2) 10 to 19:

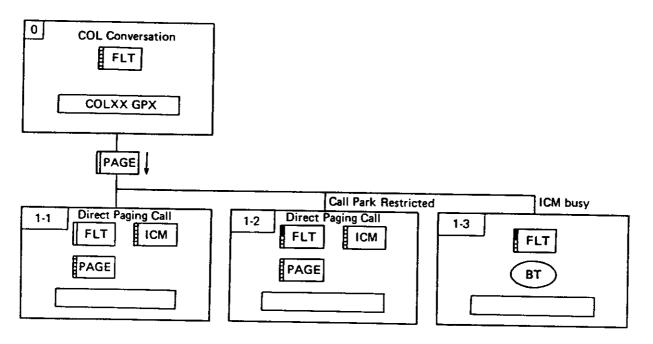
ATTND 2

- o Attendant Call Park Recall is made at the Hold Timeout feature.
- o An Attendant Call Park Orbit number is given by system automatically.
- o If all of Call Park Orbit numbers are busy, the call is placed on Consultation Hold.
- Operation Guide

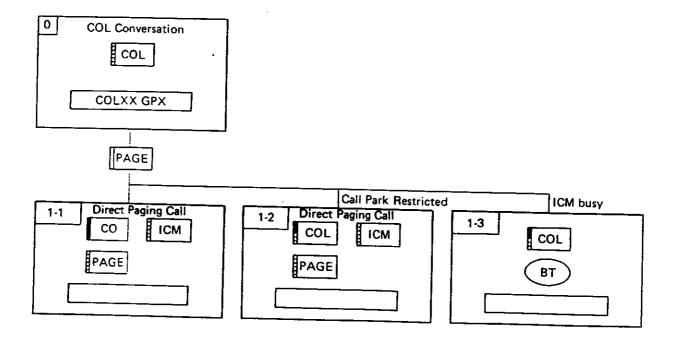
(COL Conversation) PAGE

Here, the PAGE key means the Direct Page Call key. It is either the ALL, ZONE 1 to 3, GRP 1 to 4 key, ALL ZONE or ALL GRP.

i) Conversation With FLT Key



ii) Conversation With COL Key



2.3.C.6.2 Call Park Pickup

2.3.C.6.2.1 Local Call Park Pickup

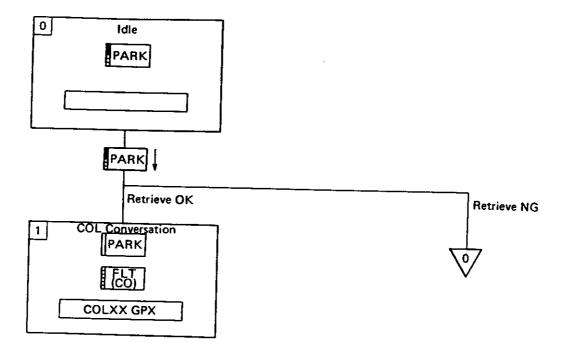
A station user can retrieve a call parked on the station.

2.3.C.6.2.1.1 Key Telephone/Versa Phone

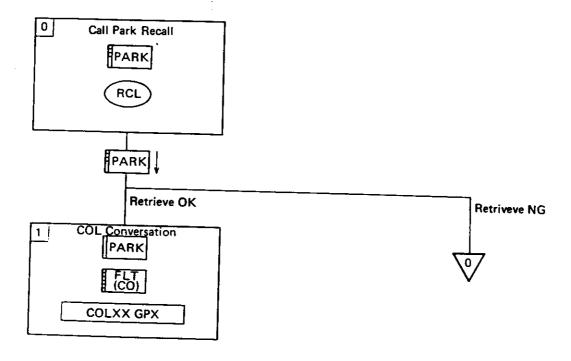
- Conditions
 - o A station user is allowed to retrieve the call by depressing the PARK key on which either I-Hold or Call Park Recall is indicated.
 - o If the operation is made during conversation, a Call Split feature is applied. (See Section 2.3.C.6.3 Call Split.)
- Operation Guide

(Off-hook) PARK

i) Local Retrieve



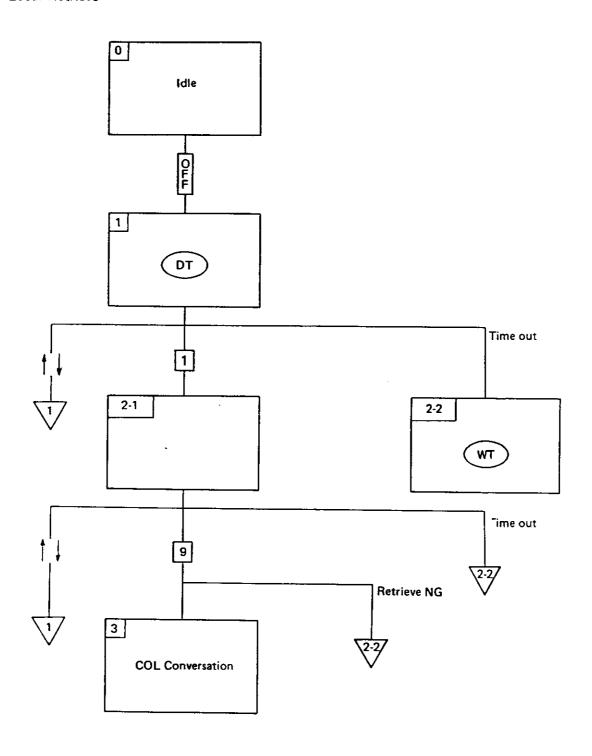
ii) Local Retrieve From Call Park Recall



2.3.C.6.2.1.2 Single Line Telephone

- Conditions
 - o A SLT user can retrieve a call placed on Call Park by dialing the special number (19).
 - o A parked call is changed to Call Park Recall the moment hold timeout. Once a parked call changes to recall, it cannot be picked up by dial '19' and lifting handset it is answered.
- Operation Guide

i) Local Retrieve



2.3.C.6.2.1.3 Attendant Call Park Pickup

Conditions

- C
- o The newest call is picked up among from those placed on Call Park by the Attendant.
- o While conversing on COL or ICM, it is disconnected when the Attendant operates this feature.
- o When the parked call is picked up by depressing P-UP key, the key lamp flashes for approximately 1.5 second.
- Operation Guide

(off-hook or SPKR on) P-UP

2.3.C.6.2.2 Remote Call Pickup

.....IWATSU

Once a call is placed in the "Park" condition, it can be picked up from another station.

2.3.C.6.2.2.1 Key Telephone/Versa Phone

A KT/VP station user can retrieve a call parked on another station (including Attendant Call Parks).

Conditions

- o A parked call can be a COL call which the operating station is restricted to pickup, in this case BT connection is made.
- o Call Park Recall is not to be picked up with this feature.
- o When a Call Park is retrieved, The PARK key lamp on the park operating KT indicates Idle indication.

Operation Guide

(Off-hook) (FEAT)
$$+5+n1+n2$$

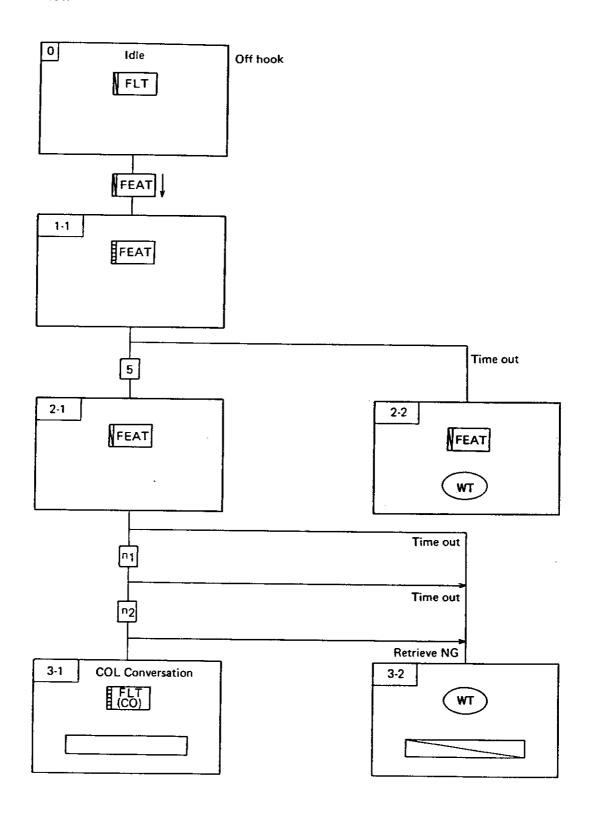
n1, n2: Call Park Orbit Number

Programming

Station Class of Service Item 25
Pickup Restriction (EXT NO.)

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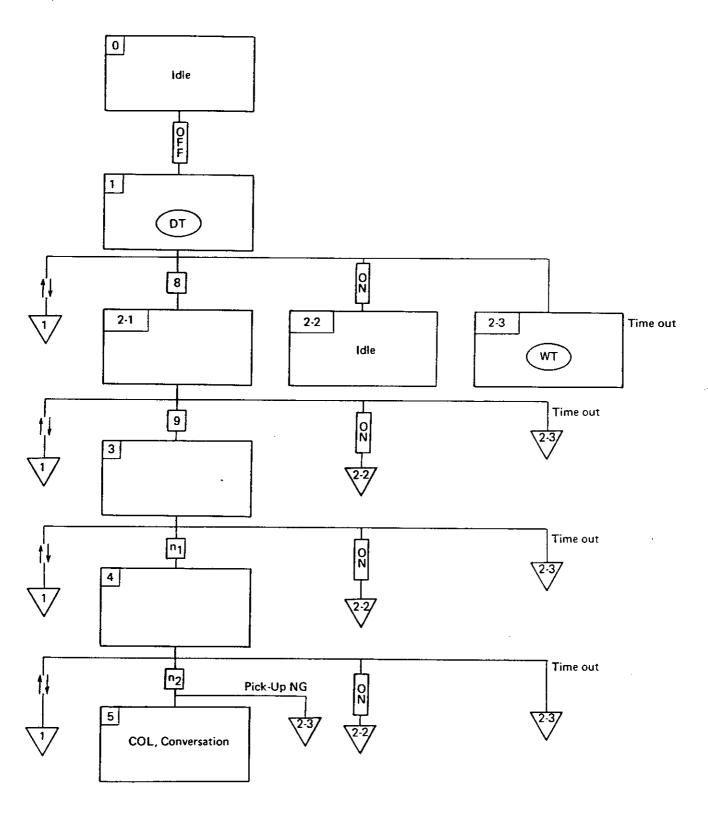




2.3.C.6.2.2.2 Single Line Telephone

- Conditions
 - o A pickup restricted SLT user is not allowed to retrieve.
 - o Call Park Recall is not to be picked up with this feature.
 - o When a Call Park is retrieved, The PARK key lamp on the park operating KT indicates Idle indication.
- Operation Guide

n1, n2: Call Park Orbit Number



While conversing on COL, with Call Park operation, the current call is placed on Call Park and a call already placed on Call Park is automatically answered.

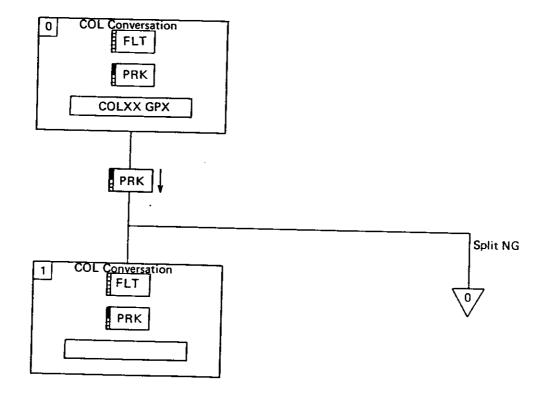
2.3.C.6.3.1 KT/VP

A KT/VP user may use the Call Split feature.

Operation Guide

(Call Park On and COL conversation) PARK

■ Operation Flow



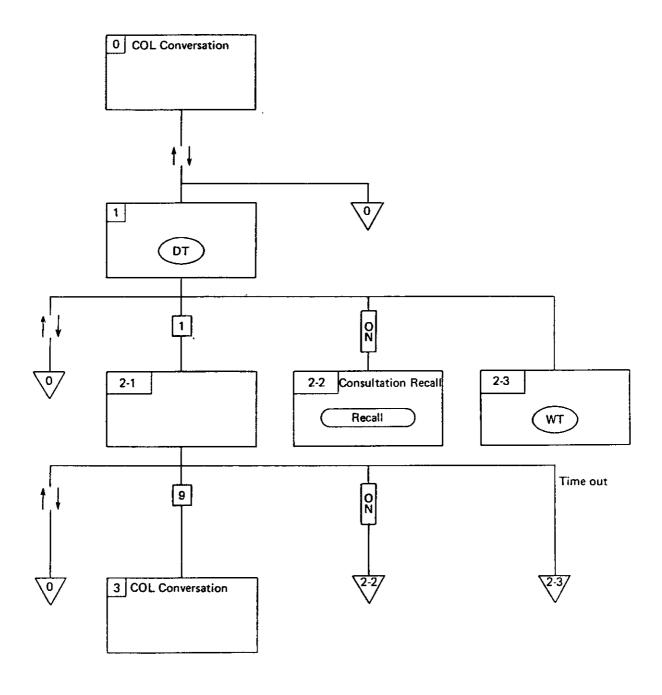
2.3.C.6.3.2 Single Line Telephone

A SLT user may use the Call Split feature with the special number (19).

Operation Guide

(Call Park On and COL Conversation) 1++11+9

Operation Flow



2.3.C.7 Call Pickup Group

Certain kinds of calls are to be picked up from a station which is in the same pickup group as the called station.

Conditions

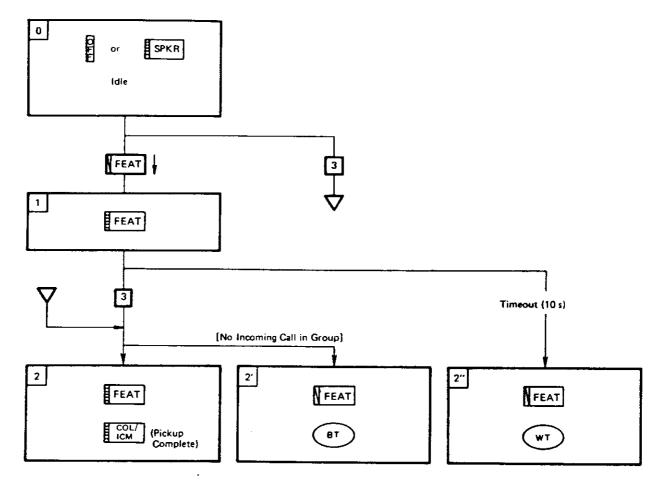
- o Call Pickup is applicable to the following calls:
 - i) COL Recall
 - ii) **COL RGT**
 - **ICM Hold Recall** iii)
 - ICM Voice/Tone Call (Including Master Group Hunt Call)
- o This feature is not applicable to pickup restricted COL calls.
- o A BT connection is made if this operation is performed when there is no incoming calls in the Pickup Group. (See Section 2.3.D.1 Direct Call Pickup.)

2.3.C.7.1 KT/VP

Operation Guide

(Off-hook or SPKR on) (FEAT) +3

Operation Guide



2.3.C.7.2 Single-Line Telephone

Operation Guide

2.3.C.8 Camp On (Unscreened Transfer)

A COL/ICM call is to be camped on a designated station.

Conditions

- o To designate destination station ICM individual call or Master Group Hunt Call is used.
- o Valid only for COL/ICM call on Consultation Hold.
- o Conference Camp On. (See Section 2.3.C.11.6 Conference Camp On.)

2.3.C.8.1 COL Camp On

After a station user places a COL on consultation hold, he can call a station and transfer the COL call to the station.

Conditions

- o Camp On Recall is connected immediately when the call is transferred to a station which is restricted to pickup the COL.
- o When a call transferred to a busy SLT Camp On Tone is sent to the station thru speech path.
- o When a call transferred to a busy SLT which has Off-hook Signal Deny service class, Camp On Tone is not sent and Camp On Recall is connected to the operating station.
- o Camp On Recall is connected when there is no answer within certain duration of time.

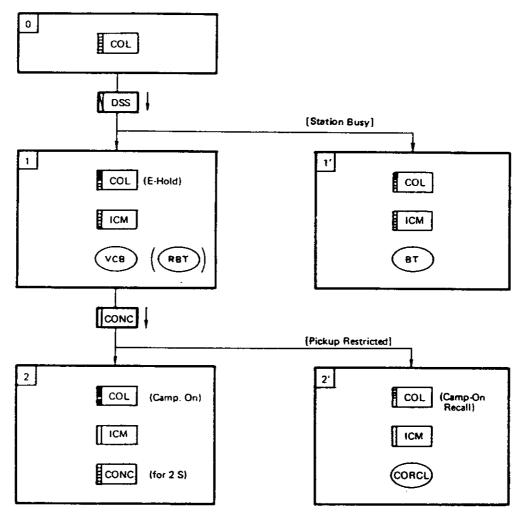
 (Duration of time is set by programming Camp On Timeout between 1 and 255 seconds.))

2.3.C.8.1.1 Attendant

While conversing on COL, Attendant can perform Camp On call with DSS key and CONC key. (See Section 2.3.C.11.2 Automatic Add On.)

Operation Guide

Operation Flow

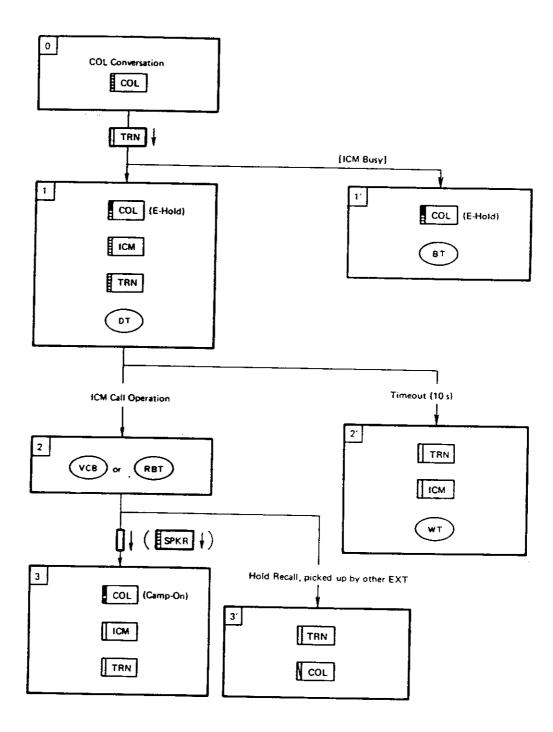


2.3.C.8.1.2 Key Telephone/Versa Phone

While conversing on COL, a KT/VP user can perform Camp On with the TRN key.

- Conditions
 - o The COL is placed on Exclusive Hold when the operation is started.
- Operation Guide

(COL Conversation) TRN + ICM Call Operation + ↓ (SPKR: SPKR on)



2.3.C.8.1.3 Single-Line Telephone

While conversing on COL, a SLT user can perform COL Camp On to other station.

■ Operation Guide

2.3.C.8.2 ICM Camp On

Conversing on an ICM call, it can be camped on to other station.

Conditions

- o If Camp On destination is busy or ICM busy, an ICM call cannot be transferred.
- o If there is no answer to Camp On within certain duration of time, Camp On call is terminated. Duration of time is set by programming Camp On Timeout Item 5 between 1 and 255 seconds. (Default is 30 seconds.)

2.3.C.8.2.1 Key Telephone/Versa Phone

While conversing on ICM line, a KT/VP user can perform ICM Camp On with the TRN key.

Operation Guide

(ICM Conversation) TRN + ICM Call Operation + □↓ (SPKR: SPKR on)

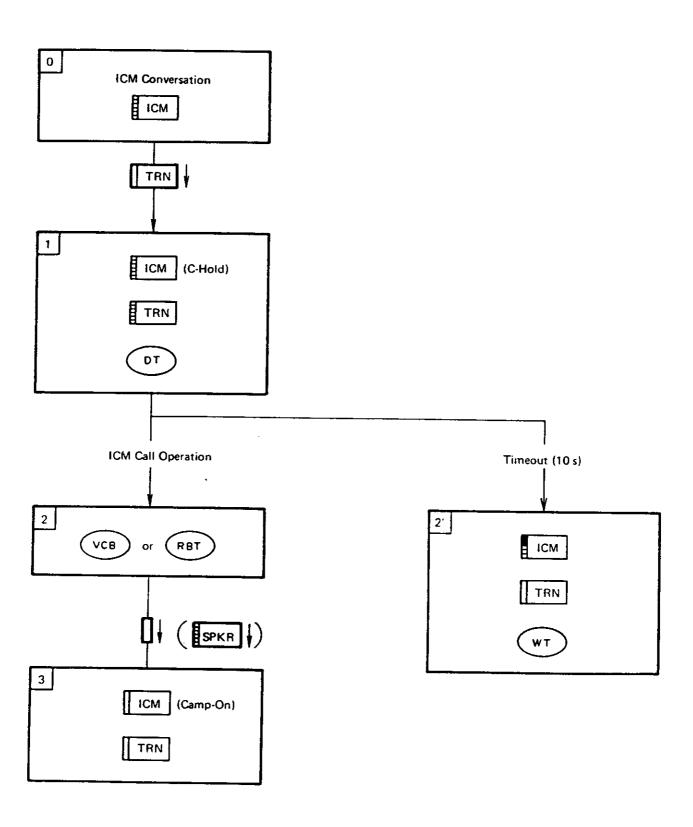
The attached Microphone can be turned off.

- Conditions
 - o Hands-free Answer Back is not available when the Microphone is turned off. (See Section 2.3.1.1.2.1 Hands-Free Answer)
 - o When the Microphone is turned off while using the speakerphone the call becoes call monitor mod. (See Section 2.3.C.5 Call Monitor)
- Operation Guide





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2.3.C.8.2.2 Single-Line Telephone

A SLT users can perform ICM Camp On after flashing switch-hook.

Operation Guide

(ICM Conversation) ↓ ↑ + ICM Call Operation + □↓

2.3.C.8.3 Camp On Pickup

Camp On call can be retrieved from another station than Camp On called station. (See Section 2.3.D.1 Direct Call Pickup.)

- Conditions
 - o A station user is not allowed to retrieve the Pickup Ristricted COL Calls.

2.3.C.8.3.1 Key Telephone/Versa Phone

Operation Guide

Operation Flow

See Section 2.3.D.1.1.

2.3.C.8.3.2 Single-Line Telephone

Operation Guide

$$(DT)$$
 1+4+n+n

nn: Camp On Called Station No.

■ Operation Flow

See Section 2.3.D.1.2. Direct Call Pickup: SLT

2.3.C.8.4 Camp On Recall

If there is no answer within certain duration of time after COL Camp On is started, Camp On Recall is made to the Camp On operating station and the Camp On call is terminated. (Duration of time is set by programming Camp On Timeout, Item 5 to between 1 and 255 seconds (Default is 30 seconds.))

Conditions

- o Camp On Recall and COL Hold Recall have the same audible indication and are collectively referred to as COL Recall.
- o If Camp On Recall continues for certain duration of time, Automatic Recall (Attendant Recall) is performed. (See Section 2.3.A.1.5 Attendant Recall.) (Duration of time is set by programming system constants, Item 4 between 1 and 255 seconds. (Default is 20 seconds.))
- o When a station user attempts to make COL Camp On to a station to which that COL is pickup restricted, Camp On Recall is sent immediately to the operating station.

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2.3.C.9 Clock Adjustment

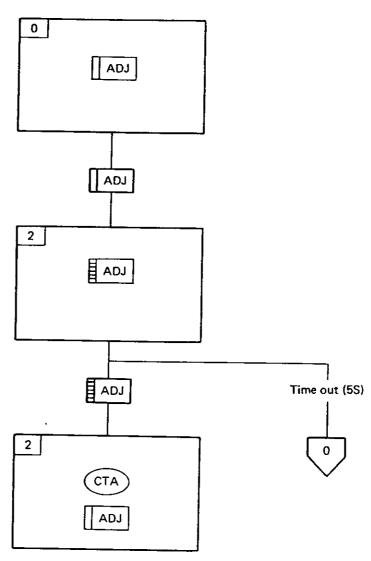
The system has a built-in system clock for a time-display and other time-related functions. An Attendant can make adjustment of the seconds to 0 second.

Condition

- o Confirmation Tone is connected when adjustment is complete.
- o Adjusted time of day is immediately displayed on ATTND display.
- o The time of day is adjusted by depressing the ADJUST key twice.
- o The adjustment is executed in the manner described below.
 - If an Attendant adjusts system-clock while second is between 0 to 29, the value of second is revised to 0.
 - If an Attendant adjusts system-clock while second is between 30 to 59, the value of second is revised to 0 and minute increases by 1.
- o This function is for time, minutes and second adjustment, and not for date.
- o If there is no Attendant, the KT/VP user with station No. 20 can adjust the system-clock. (See Section 2.3.P.7.4 Programming from KT/VP.)

Operation Guide

(Attendant KT off-Hook) ADJ + ADJ



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2.3.C.10 COL Selection

2.3.C.10.1 KT/VP

Originating a COL call a station user can select COL which is not Pickup Restricted and in the same tenant as the station. (See Section 2.3.D.2 Direct COL Assignment.)

Conditions

1

- o Only a COL which has direct appearance on the station can be selected among them.
- o When a station user originates a call, he can access only a COL which is not outgoing restricted. (See Section 2.3.0.5 Outgoing Restriction.)
- Operation Guide

(Off-hook or SPKR on) COL

(On-hook and SPKR off) COL + 1 (SPKR)

2.3.C.10.2 SLT

To originate a COL outgoing call with SLT, an idle COL in designated COL group is seized automatically.

- Conditions
 - o System assigns an idle COL in the same tenant as the caller, a COL which is not pickup restricted and is not outgoing restricted.
 - o System searches COLs in the group from one with the largest COL number.
 - o COL group number 1 to 7 are designated by dial number 91 to 97 correspondingly.
- Operation Guide

n: 1, 2, 3, 4, 5, 6, 7

Programming

Line Specification Item 12

CO Outgoing Group (COL No.)

1 ~ 7 Group

0: Not Assigned

Default is Group 1.

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IWATSU EX-1232/2464

2.3.C.11 Conference

Up to three internal party can be connected to a COL simultaneously. And up to four party can be joined to an internal call. A station can seize two COL simultaneously.

Conditions

- o Conference features are listed below.
 - 1. Add On Conference
 - 2. Automatic Add On
 - 3. Conference Hold
 - 4. Multi Line Conference
 - 5. Trunk To Trunk Conference
 - 6. Conference Camp On

2.3.C.11.1 Add On Conference

Up to three (COL call) or four (internal call) parties can participate in a conference.

2.3.C.11.1.1 COL Add On Conference

Up to three parties can participate in a COL conference.

Conditions

- o A station can not participate in a COL conference which is pickup restricted from the station. And in this case an Add On conference operation is ignored.
- o When an Add On Operation is completed, an Add On Tone is sent to all the parties and the COL.

Programming

Station Class-of-Service Item 25: Pickup Restriction (EXT No.)

Each COL

(Lit: No Restriction Blink: Restriction

Default is No Restriction

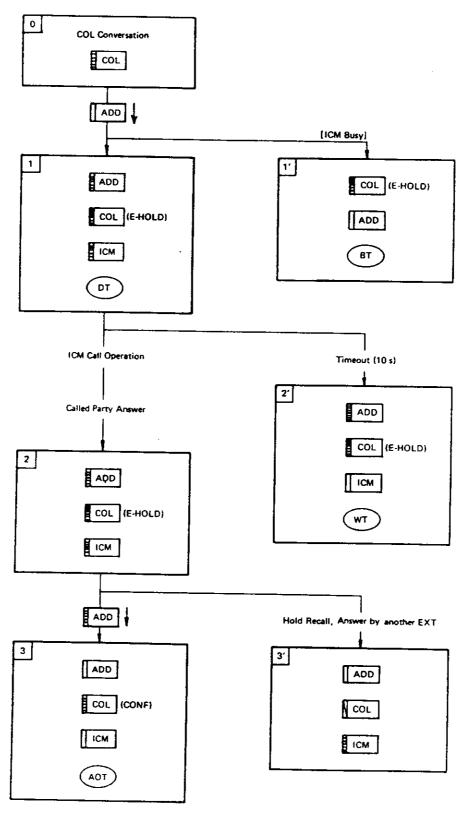
2.3.C.11.1.1.1 Add On Conference From COL Conversation (KT/VP)

A KT/VP user in COL conversation can make a COL Add On Conference to call another station.

Conditions

- o The COL is placed on Exclusive Hold during the operation and ADD key lamp on the station flashes.
- o If the COL goes Hold Recall, or if another station user answers the COL before the operation is complete, the ADD key lamp goes out and the operation terminates.

Operation Guide

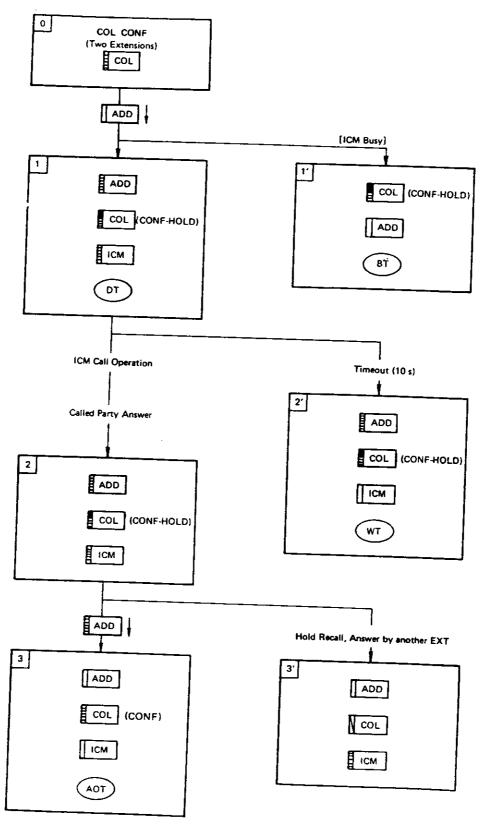


2.3.C.11.1.1.2 Add On Conference From COL Conference (KT/VP)

If two extensions are in a COL Add On Conference, another party can be joined to the conference.

Conditions

- o The COL is placed on Conference Hold during the operation.
- o If another station user answers the COL before the operation is complete, the ADD key lamp goes out and the operation terminates.
- Operation Guide



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2.3.C.11.1.1.3 Add On Conference From Conference Hold (KT/VP)

If the COL engaged in an Add On Conference is placed in any of the following conditions, other KT/VP user can join the conference by depressing the COL key:

- C
- o An station user in the Add On Conference places the Conference on hold. (See Section 2.3.C.11.3 Conference Hold.)
- o Either station user performs Privacy Release in a two-party conference. (See Section 2.3.P.5 Privacy)
- Operating Guide

(Off-hook or SPKR on)

COL

(On-hook and SPKR off)

COL + 1

COL + SPKR

2.3.C.11.1.1.4 Add On Conference by Executive (KT/VP)

An Executive KT/VP user can connect itself to a busy COL or a COL engaged in an Add On Conference by depressing the COL key. (See Section 2.3.0.6.3 Executive Override.)

Conditions

- o The above operation is invalid while outgoing COL call is to be originating.
- o It is invalid if three stations are connected to a COL.
- o If the COL is busy in the Privacy mode (other than Privacy Release and Conference Hold), no Add On Tone is sent.
- Operation Guide

(Off-hook or SPKR on)

COL

(On-hook and SPKR off)

COL + 1

COL + SPKR

2.3.C.11.1.1.5 Add On Conference From COL Conversation (SLT)

While conversing on COL in progress, a SLT user can have a COL Add On Conference to call another station.

Conditions

- o The COL is placed on Exclusive Hold during the operation.
- o If the COL is placed on Hold Recall or if another extension answers before the operation is complete, the operation terminates.

Operation Guide

(COL Conversation) 11 + ICM Call Operation + Called Party Answer + 11

2.3.C.11.1.1.6 Add On Conference From COL Conference (SLT)

If two stations are connected to a COL, the SLT user in the Add On conference can join another station to it.

Conditions

- o The COL is placed on Conference Hold during the operation.
- o If another station user answers the COL before the operation is complete, it is terminated.

Operation Guide

2.3.C.11.1.2 ICM Add On Conference

Up to four party can participate in an internal call.

C

Conditions

o Upon completion of an Add On operation, an Add On Tone is sent to all the parties.

2.3.C.11.1.2.1 Add On Conference From ICM Conversation (KT/VP)

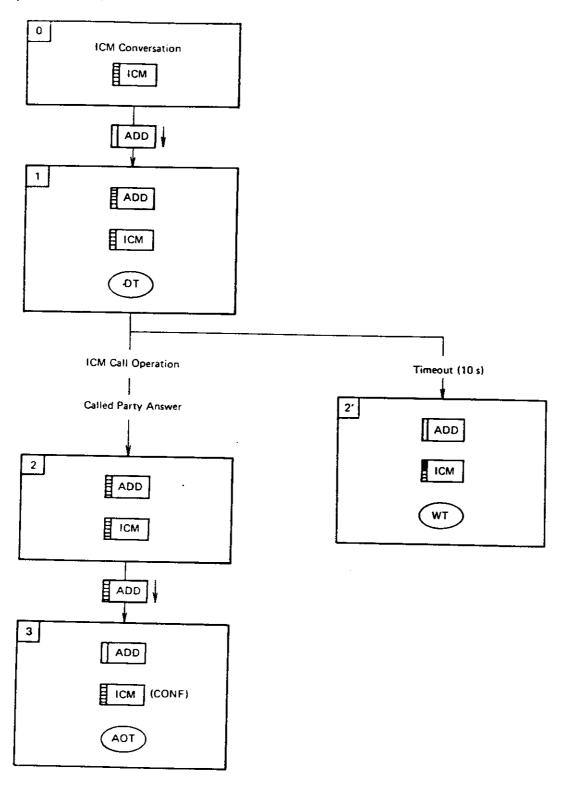
While in conversing on an internal call a KT/VP user can initiate an ICM Add On Conference.

Conditions

- o The ICM line is placed on Consultation Hold during the operation.
- No ICM line is necessary but the one engaged in conversing.
- o The operation is terminated if Consultation Hold Recall begins.

Operation Guide

(ICM Conversation) ADD + ICM Call Operation + Called Party Answer + ADD



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2.3.C.11.1.2.2 Add On Conference From ICM Conference (KT/VP)

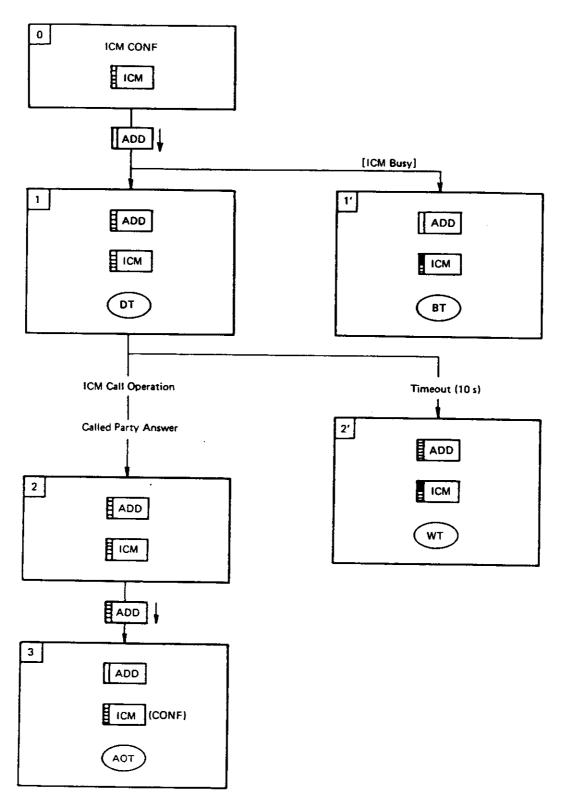
In a three party internal conference, another station can participate in the conference.



Conditions

- o The call is placed on Conference Hold during the operation.
- o An ICM line other than the one engaged in the conference is used for calling.
- Operation Guide

(ICM CONF) ADD + ICM Call Operation + Called Party Answer + ADD



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2.3.C.11.1.2.3 Add On Conference From ICM Conversation (SLT)

While in conversing on an internal call, a SLT user can initiate an ICM Add On Conference.

Conditions

- o The ICM line is placed on Consultation Hold during the operation.
- o The operation is terminated if Consultation Hold Recall begins.
- Operation Guide

(ICM Conversation) \$\pm\$1 + ICM Call Operation + Called Party Answer + \$\pm\$1

2.3.C.11.1.2.4 Add On Conference From ICM Conference (SLT)

In a three party internal conference, another station can participate in the conference.

- Conditions
 - o The ICM line is placed on Conference Hold during the operation.
- Operation Guide

(ICM CONF) ↓↑ + ICM Call Operation + Called Party Answer + ↓↑

2.3.C.11.2 Automatic Add On

IWATSU

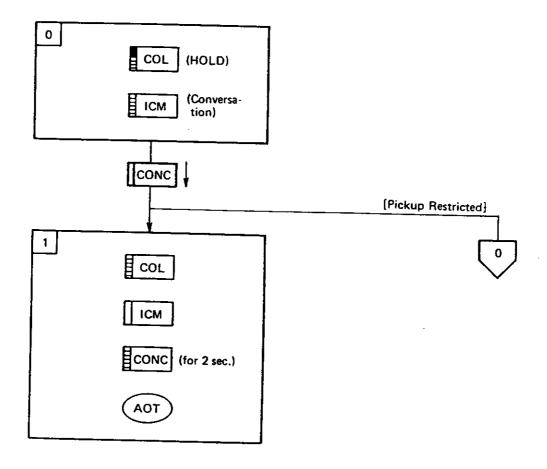
While conversing on an internal call with held COL, an Attendant can initiate a three-party Add On Conference with the COL by depressing the CONC key. (See Section 2.3.C.8 Camp On.)

Conditions

- o If some COL calls are placed on hold, this operation is effective for the COL that was most recently placed on hold.
- o If the station which the Attendant converses is pickup restricted from the held COL, the operation is ignored.

Operation Guide

(ICM Conversation with COL hold) CONC



2.3.C.11.3 Conference Hold

A conference call can be placed on hold. And it can be retrieved again.



Conditions

- o Once a conference is held, no more hold operation is valid.
- o Conference Hold is canceled when another station joins to the conference.

2.3.C.11.3.1 COL Conference Hold

If a station user performs holding operation (including Call Park) while conversing in a COL Conference, the COL is placed on a Conference Hold.

2.3.C.11.3.1.1 Key Telephone/Versa Phone

A KT/VP user can place a COL Conference on Conference Hold.

Operation Guide

(COL Conference) HOLD (ADD, TRN, PARK), OPT, FLTn, FLT, COL: Conversing COL

2.3.C.11.3.1.2 Single-Line Telephone

A SLT user can place a COL Conference call on Hold.

Operation Guide

(COL Conference) ↓↑

2.3.C.11.3.2 COL Conference Hold Pickup

A station user can pick up a COL Conference Hold.

- Conditions
 - o A SLT user can pick up only the COL placed on Conference Hold by own station.

2.3.C.11.3.2.1 Key Telephone/Versa Phone

Operation Guide

2.3.C.11.3.2.2 Single Line Telephone

Operation Guide

2.3.C.11.3.3 ICM Conference Hold

An internal conference call can be held. (The Call Park feature is not available for an ICM.)

2.3.C.11.3.3.1 Key Telephone/Versa Phone

Operation Guide

2.3.C.11.3.3.2 Single Line Telephone

Operation Guide

(ICM Conference) 11

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2.3.C.11.3.4 ICM Conference Hold Pickup

A station user can pick up ICM Conference Hold.

- Conditions
 - o Only the station user who initiated the hold can pick up the ICM Conference Hold.

2.3.C.11.3.4.1 Key Telephone/Versa Phone

Operation Guide

2.3.C.11.3.4.2 Single Line Telephone

Operation Guide

(Off-hook) † ↓

2.3.C.11.4 Multi Line Conference

Two COLs can be seized by a station simultaneously.

Conditions

- o CONF-ME board is necessary for this feature. The operation is ignored if this board is not installed or busy.
- o The key lamps for the two CO lines which are in conference on the KT/VP indicate I-USE indication.
- o Both COLs are disconnected if the station user disconnects the call.
- o The station user initiating a Multi Line Conference can switch the two COL lines into a Trunk to Trunk Conference. (See Section 2.3.C.11.5 Trunk to Trunk Conference.)

2.3.C.11.4.1 Key Telephone/Versa Phone

Operation Guide

(COL Conversation with COL hold) | ADD

2.3.C.11.4.2 Single Line Telephone

Operation Guide

(COL Conversation with COL Hold) ↓↑

2.3.C.11.5 Trunk-to-Trunk Conference

A station user initiating a Multi Line Conference may switch the two CO lines to Trunk to Trunk Conference. (See Section 2.3.C.11.4 Multi Line Conference.)



Conditions

- o Valid only when the two COLs have Disconnect Signals.
- Both COLs are disconnected when the disconnect signal of either COL is detected during the Trunk to Trunk Conference.
- Only the station user who initiated a Trunk to Trunk Conference can retrieve it until the recall is started.
- o When the station user who initiated a Trunk to Trunk Conference retrieve it again, it changes to a Multi Line Conference.
- o When a SLT user initiates a Trunk to Trunk Conference, Hold Recall is started after certain duration of time which is with an interval four times that of Hold Recall Time but the duration cannot exceed 255 seconds. Attendant Recall is started if the SLT user is busy when the timeout occurs. (See Section 2.3.A.1.5 Attendant Recall.)
- o Attendant Recall is performed if Recall continues for a certain duration of time.
- o If a COL with Pickup Restricted attendant is included in the conference, Attendant Recall is not performed and Hold Recall continues. (See Section 2.3.H.2.7 Hold Recall.)
- o The operation to initiate a Trunk to Trunk conference is ignored in case of either or both COL in Multi Line Conference don't have Disconnect Signal.
- o The key lamps for the two CO lines on the KT/VP which initiates a Trunk to Trunk Conference indicate I-HOLD pattern during the conference.

Programming

Line Specification Item 9. Disconnect Signal (COL No.)

0: No Reception

1: With Disconnect signal

Default value is 1 with Disconnect Signal

2.3.C.11.5.1 KT/VP

Operation Guide

(Multi Line Conference) HOLD (COL: COL with I-USE indication)

2.3.C.11.5.2 SLT

Operation Guide

(Multi Line Conference) 11

2.3.C.11.6 Conference Camp-On

A station user engaged in ICM Conference can initiate Conference Camp On to call another station.

Conditions

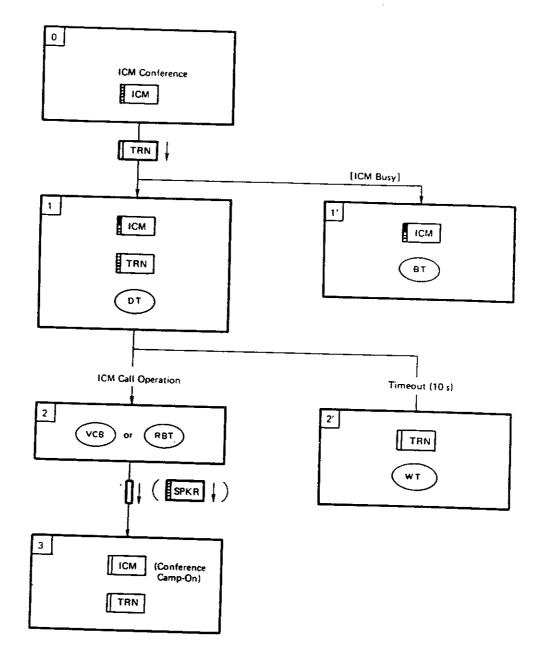
- o This feature is not applied when the operating station has no other idle ICM.
- Conference Camp On is canceled if the selected station does not respond to within certain duration of time. Duration of time is set by programming system constants, Item 5 between 1 to 255 seconds (Default is 30 seconds.))

2.3.C.11.6.1 Key Telephone/Versa Phone

A KT/VP user engaged in an ICM conference can initiate Conference Camp On with the TRN key.

Operation Guide

(ICM Conference) TRN + ICM Call Operation + 1 (SPKR: SPKR on)



2.3.C.11.6.2 Single Line Telephone

A SLT user engaged in an ICM conference can initiate Conference Camp On after flashing the switchhook.

Operation Guide

(ICM Conference) ++ + ICM Call Operation + | +

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2.3.D.1 Direct Call Pickup

A station user can pick up calls ringing on another station within the same tenant as the station by dialing special number and called station number.

- Conditions
 - o The following calls can be picked up.
 - i) COL Recall
 - ii) COL RGT
 - iii) ICM Hold Recall
 - iv) ICM Voice/Tone Call (Including Master Group Hunt Call)
 - o A station user can not pick up calls on a Pickup Restricted COL.

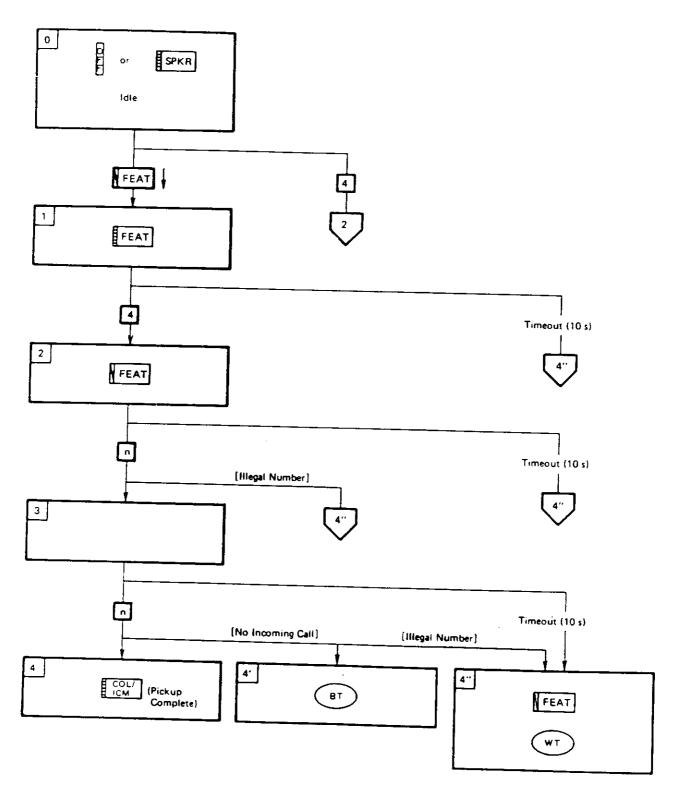
2.3.D.1.1 Key Telephone/Versa Phone

Operation Guide

(Off-hook or SPKR on) (FEAT) +4+n+n nn: Called EXT No.

D

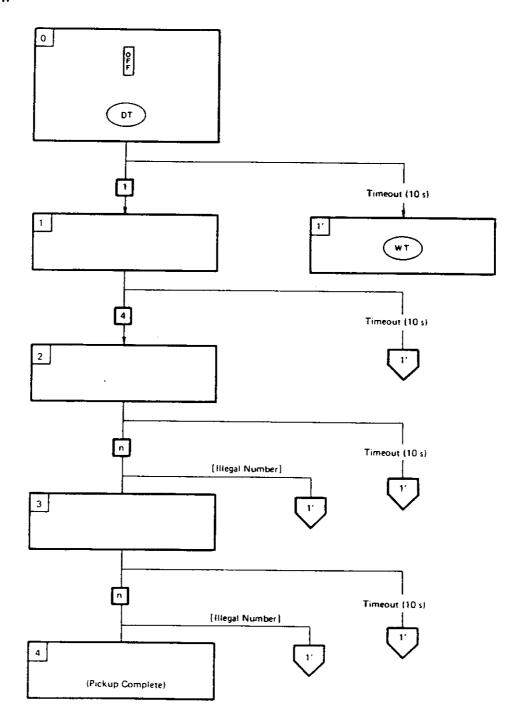
Operation Flow



2.3.D.1.2 Single Line Telephone

Operation Guide

Operation Flow



2.3.D.2 Direct COL Assignment

A KT/VP user can access a COL directly by depressing the direct COL keys assigned to COLs.

Conditions

- o Only those COLs in the same tenant and not pickup restricted from the station can be assigned as
- o Direct COL keys can be assigned to Line Keys or Certain Function Keys. (See Section 2.3.F.2 Flexible Key Assignment.)

Programming

Station Class-of-Service Item 25, Pickup Restriction (Station No.)

Each COL No.:

(Lit: No Restriction Blink: Restriction

Default is No Restriction

Station Class-of-Service Item 26, KT key Assignment (Station No. X key No.)

. '

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2.3.D.3 Disconnect

2.3.D.3.1 COL

A COL call is disconnected with disconnect signal of the COL, disconnect operation by station, or forced disconnect by ATTND.

2.3.D.3.1.1 Disconnect Signal

When a disconnect signal from a COL is detected, the COL is disconnected and the conversing or holding stations on the COL are released.

Conditions

- o Disconnect signal is valid only with those COLs which are programmed as disconnect signal enable.
- o When a disconnect signal is detected during COL conversing, COL holding, COL Hold Recall, or COL Camp On, the COL is disconnected.
- o When originating a COL outgoing call, a disconnect signal is ignored.

Programming

Line Specification Item 9, Disconnect Signal (COL No.)

0: No Reception

1: With Disconnect Signal

Default value is 1 with Disconnect Signal

Setting

Threshold value of Disconnect Signal is set with DIP switch on CTRK-ME. (See Section 3.6.2.4.2.2 CTRK-ME.)

2.3.D.3.1.2 Disconnect Operation

While conversing on COL call, the COL is disconnected when a station user performs a Disconnect Operation.

Conditions



- o After being disconnected, the COL is locked out for an interval equal to the Flash Signal length predefined by the system data to ensure the line disconnected by the central office.
- o The COL is not disconnected and only the station is released from the call when a disconnect operation is performed by one of parties during COL Conference or COL Conference Hold.

2.3.D.3.1.2.1 Key Telephone/Versa Phone

- Operation Guide
 - (Off-hook and SPKR off) ∏↓
 - (On-hook and SPKR on) | SPKR |
 - iii) (COL Conversation) [ICM], [COL] (other COL)

2.3.D.3.1.2.2 Single Line Telephone

Operation Guide

(COL Conversation) | |

2.3.D.3.1.3 Forced Release from ATTND

An Attendant can disconnect a busy COL with the Trunk Forced Release feature. (See Section 2.3.A.1.12 Trunk Forced Release.)

2.3.M.5 Multi Level Toll Restriction

This feature is allowed to perform Multi Level Toll Restriction according to the COL outgoing dial number.

2.3.M.5.1 Toll Restriction Call

Calls subject to Toll Restriction are calls from stations with Toll Dial Class of Restriction 1 to 4 on COLs assigned to Toll Restriction Group 1 to 4.

Conditions

- o Calls originated with System Speed Dialing are excluded from Toll Restriction_unless the calling station is set to Toll Speed Dial Access Deny.
- o In the above case, if Manual Dial or Station Speed Dial is originated after System Speed Dial, all dials are subject to Toll Restriction.
- o The outgoing calls on a PBX line or an E&M tie line whose dial number does not involve the PBX Outoging Specific Code from the first digit are not subject to Toll Restriction.

Programming

Line Specification Item 6: Toll Restriction Group (COL No.)

0: No Toll Restriction

1 to 4: Toll Restriction Group No.

Station Class-of-Service Item 14: Toll Speed Dial Access Deny

Each EXT

(Steady on : Allow

lFlash

: Deny

Station Class-of-Service Item 22: Toll Dial Class of Restriction (EXT No.)

0: No Toll Restriction

1 to 4: Toll Dial Class No.



2.3.M.5.2 Toll Dial

Toll Dial consists of the following codes:

i) Predial

If system data PBX Outgoing Specific Code, is dialed from the first digit on a PBX line COL, it is considered as a predial code.

The truck group code on the E&M Tie Line COL is considered a predial code.

An interexchange carrier code at the tme of Equal Access is considered a predial code.

ii) Operator call dial

When the first digit excluding the predial is 'O', it is considered an operator call dial.

iii) Prefix

If COL is set to Prefix Dial, '1' in the first digit excluding predial is considered a prefix.

iv) Area code

Excluding predial and prefix, if the first digit is 2 to 9, the second digit is 0 or 1, and the third digit is 0 to 9, then these three digits are considered an area code.

v) Special dial

Excluding predial and prefix, if the first two digits are '1N' or if the first three digits are 'N11' where (N=2 to 9), then these dials are considered special dials.

vi) Officecode

The first three digits excluding the predial, prefix, and area code are considered an office code.



vii) Subscriber code

Four digits following the office code are considered a subscriber code.

2.3.M.5.3 Special Dial Exceptions

Special dials are provided to perform processes different from normal Toll Restriction.

2.3.M.5.3.1 Override Office Code

When an override official code is entered subsequent to an area code, no restriction is imposed on the area code and office code.

2.3.M.5.4 Deny Mode

Toll Restriction in deny mode takes place when the input dial matches certain dials in system Toll Restriction data, and then the COL is disconnected and a WT connection is made to the station.

Programming

Toll Restriction Item 1: Toll Plan No.
(Group: COL Toll Group No., Class: EXT Toll Dial Class No.)
0: No Function
1 to 15: Toll Plan No.

2.3.M.5.4.1 PBX/E&M Tie Line Condition

Toll restriction is imposed on the entry of a PBX Outgoing Specific Code preprogrammed by the system data on a PBX/E&M Tie Line COL.

Condition

o Toll restriction is not imposed on the entry of a code other than the PBX Outgoing Specific Code by preprogrammed of the system data on a PBX/E&M Tie Line COL. Therefore, this condition is imposed on only those dials registered with the PBX Outgoing Specific Code.

Programming

TII Restriction Item 2: Toll Plan Table
(Plan: Toll Plan No., Condition: 1=PBX/E&M)
0-II-mm-nn-pp-qq-rr: deny mode
II, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)

dddd-ss-tt dial dial table no. (00, 01 to 50)



2.3.M.5.4.2 Operator Call Condition

Operator Call Dial is restricted.

Programming

Toll Restriction Item 2: Toll Restriction Plan and Condition (Plan: Toll Plan No., Condition: 2=operator call)

0: deny mode

2.3.M.5.4.3 Area Code Condition

An area code matching a dial number specified with system toll restriction data is restricted. Note that as there is override office code, restriction is performed when the override office code is not satisfied. (See Section 2.3.M.5.3.1 override office code.)

Programming

Toll Restriction Item 2: Toll Restriction Plan and Condition (Plan: Toll Plan No., Condition: 3=area code, 5=prefix area code)

0-II-mm-nn-pp-qq-rr: deny mode
II, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)

dddd-ss-tt

(dddd: dial

lss, tt: dial table no. (00, 01 to 50)

Toll Restriction Item 8: Override Office Code (Tenant A/BX Office Group table no. 1 to 4)

Override office code dial 3 digits

2.3.M.5.4.4 Office/Subscriber Code Condition

The Office/Subscriber code corresponding to the dial sequence programmed by system data and special dial (N11, 1N) can be restricted.

Programming

Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Conditions: 4=office/subscriber code
6=prefix office/subscriber code)
0-II-mm-nn-pp-qq-rr: deny mode
II, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)

dddd-ss-tt

(dddd: dial

ss, tt: dial table no. (00, 01 to 50)



2.3,M.5.5 Allow Mode

Toll restriction in Allow Mode is performed when the input dial does not match the system toll restriction data. Then COL is disconnected and a WT connection is made to the station.

Conditions

o Allow mode is not applicable to Operator Call condition.

| IWATSU

Programming

```
Toll Restriction Item 1: Toll Plan No.
(Group: COL Toll Group No., Class: EXT Toll Dial Class No.)
0: No Function
1 to 15: Toll Plan No.
```

2.3.M.5.5.1 PBX/E&M Tie Line Condition

If a dial number among the PBX Outgoing Specific Code which is other than system toll restriction data is entered on E&M Tie Line or PBX line, it is restricted.

Programming

```
Toll Restriction Item 2: Toll Restriction Plan and Condition (Plan: Toll Plan No., Condition: 1=PBX/E&M)

1-II-mm-nn-pp-qq-rr: allow mode
II, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)
```

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)

dddd-ss-tt {dddd: dial

\ss, tt: dial table no. (00, 01 to 50)



2.3.M.5.5.2 Area Code Condition

An area code that does not match system toll restriction data is restricted. Note that as there is special override office code, restriction is performed when override office code condition is not satisfied. (See Section 2.3.m.5.3.1 Override Office Code.)

Programming

2.3.M.5.5.3 Office/Subscriber Code Condition

The Office/subscriber codes that do not correspond to the dial sequence preprogrammed by system data and special codes (N11, 1N) can be restricted.

M

Programming

```
Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Condition: 4=office/subscriber code
6=prefix office/subscriber)
1-II-mm-nn-pp-qq-rr: allow mode
II, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

The Restriction Item 3: Toll Restriction Dial Table (dial table no.)

dddd-ss-tt

dddd: dial
ss, tt: dial table no. (00, 01 to 50)
```

The method for assigning dial numbers in the Exception Table is described below.

2.3.M.5.6.1 Dial Table Selection

A restriction mode (0: deny; 1: allow) and up to six numbers of the dial table containing dial numbers can be programmed by data corresponding to plan number and condition number to Toll Restriction Plan and Condition. If more than one dial table is programmed the system searches for them.

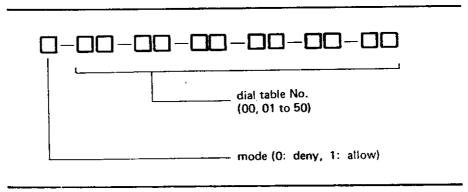


Figure 2.2.M.5.6.1 Toll Restriction Plan and Condition Data

2.3.M.5.6.2 Dial and Expansion

There are ten data entries in an dial table. Each data entry consists of a dial number of up to four digits and up to two expanded dial table numbers. If expansion is programmed, the system refers to the dial data in the expanded dial table following the dial data. If there are two expanded dial tables, the system refers to the first table and then the second table.

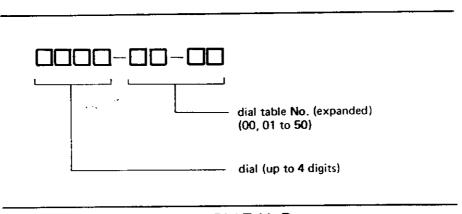


Figure 2.3.M.5.6.2 Dial Table Data



		* * * * * * * * * * * * * * * * * * *

2,3,N,1 Night Service

This feature allows the system to be switched to Night Mode and perform various ringing services on incoming COL calls. (See Section 2.3.N.1.4 Universal Night Assign.) (See Section 2.3.M.3.4 Night Automatic Answering.)

Conditions

- o Night mode is set for each tenant.
- o Night Mode is automatically released with Power-on Reset.

2.3.N.1.1 Switching Night Mode

The Attendant may switch the corresponding tenant to Night Mode (or Day Mode).

Conditions

- o NIGHT key lamp on the Attendant Console lights during Night Mode.
- o The Attendant may switch Night Mode and Day Mode.

Operation Guide

(ATTND KT/VP Off-hook) NIGHT

2.3.N.1.2 Night Relay

Night Relay remains operating during Night Mode.

Condtitions

o Valid only for Tenant A.



2.3.N.1.3 Automatic Night Assign

When there is a COL incoming call in Night Mode, the station preprogrammed by Automatic Night Assign of the COL ring, unlike in Day Mode.

- Conditions
 - o Same as a COL incoming call in Day Mode, except for the ringing stations.
- Programming

Line Specification Item 4: ANA (COL No.)

Each station

0: Does not ring

1: Rings



2.3.N.1.4 Universal Night Assign

When a Universal Night Assign (UNA) attribution is assigned to a COL various services are provided for an incoming call during Night Mode.

Conditions

- o Valid for tenant A only.
- o If a COL incoming call is received during Day Mode and the mode changes to Night Mode during the call, the call does not use UNA facility.
- o If a COL incoming call is received during Night Mode and the mode changes to Day Mode during the call, the call continues to use the UNA facility.

Programming

Line Specification Item 2 Tenant Group (COL No.)

0: Tenant A

Item 3 Universal Night Assign (COL No.)

1: with attribute

2.3.N.1.4.1 UNA Relay

While there is an incoming call on a COL with UNA attribute during Night Mode, the UNA Relay operates in a 1-second-on/3-seconds-off pattern.

2.3.N.1.4.2 Paging

While there is an incoming call on a COL with UNA attribute during Night Mode, CORGT is sent from the Paging Speakers.



o CO RGT is mixed at the paging speakers while paging call goes on.



2.3.N.1.5 Universal Night Assignment Pick Up

An Incoming calls on a COL with UNA attribute during Night Mode can be picked up with an SLT, KT and VP.

- Conditions
 - o A BT is accessed when no COL can be picked up.
 - o If multiple COLs can be picked up, they are answered in the order of first-come, first-served.
- Operation Guide
- KT/VP i)

(off hook or SPKR or $\boxed{\text{FEAT}} + \boxed{4} + \boxed{9} + \boxed{9}$)

ii) SLT

(DT) 9 + 9

2.3.O.1 On-hook Dialing

COL and ICM lines can be picked up and dialed without lifting the handset at a KT/VP.

Conditions

- o With on-hook dialing, a station user can hear voice from COL/ICM but voice from the KT/VP is not sent to COL/ICM.
- o When the microphone switch at the KT/VP with speakerphone is on , the speakerphone is turned off and switched to On-hook Dialing. The speakerphone operates automatically, as soon as the COL/ICM call is connected.
- o By lifting the handset, the speaker turns off and normal handset calling is available.
- See Section 2.3.H.1 Hands-free Station. (2.3.C.5 Call Monitor)

Operation Guide



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2.3.O.2 Optimized Call Routing

This feature selects the optimum line to comply with the input dial information depending on the system line condition or time zone, and transmits it after converting it into a dial mode suitable to the seized line.

2.3.O.2.1 KT/VP/SLT

Conditions

- o There are seven COL Groups (1 to 7), and these are identical to the Floating COL Groups.
- o This feature is void on Optimized Call Routing Access Denied station,
- o The desired number of steps can be assigned with the Route Advance Step in the Station Class of Service.
- o See Section 4.2.2.6 Optimized Call Routing Access.
- o The dialed numbers are sent after all dialing digits are entered.

Operating Guide

(See Section 2.3.F.3 Floating COL Group Access.)

Programming

- o Line Specification Item 12 CO Outgoing Group (CO No.) 1 to 7 CO Outgoing Group No.
- o Station Class of Service Item 20
 Optimized Call Routing Access Deny.

 Each station—
 Flash:

 deny
- o Station Class of Service Item 24
 Route Advance Step (EXT No.)
 0 to 3 Level



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2.3.O.3 Optional Equipment

Various optional units are available. Refer to Part 3. Details of Installation.

2.3.M.3.8 Electronic Mail

Condition

2.3.0.3.1. Station Hard of Hearing Handset (SHHD)/Station Noise Canceling Handset (SNHD)
2.3.0.3.2. Headset Adapter
2.3.0.3.3. External Station Loud Ringer
2.3.0.3.4. External Alarm Signal (Loud Ringer)
2.3.M.3.7 Voice Mail



2.3.0.3.1 SHHD/SNHD

The Station Hard of Hearing Handset (SHHD) or Station Noise Canceling Handset (SNHD) can be connected to a KT/VP. (See Section 3.10.4.4(2) Optional Unit installation (d), (e).)

2.3.0.3.2 Headset Adaptor

An optional Headset Adaptor can be connected to a KT/VP. (See Section 3.10.3.4 Optional Features.)

2.3.0.3.3 External Station Loud Ringer

An External Station Loud Ringer Relay can be connected to a KT/VP. (See Section 3.10.3.4 Optional Features.)

■ Conditions

- o The External Station Loud Ringer Relay operates in a 1-second -on, 3-seconds-off pattern at the KT/VP with an incoming COLRGT or COL Camp-on.
- o The ringer operates even when there is a call with higher priority.
- o The ringer does not operate on other COL incoming calls (Recall, Callback).

2.3.O.3.4 External Alarm Signal (Loud Ringer)

A Loud Ringer Relay can be connected on each COL and used for an incoming call. (See Section 3.4.6.6 Loud Ringer Installation.)

Conditions

- o When there is an incoming call on the COL, the Loud Ringer operates in a 1-second-on, 3-seconds-off pattern.
- o The Loud Ringer does not operate on other COL calls (Camp On, Recall, and Caliback).



2.3.O.4 Outgoing Address Signal

The system can send a dial signal (Outgoing Address Signal) to a COL.

- Conditions
 - o Dial transmission is executed in the following cases:
 - i) Dialing from a KT/VP.
 - ii) Dialing from a SLT on a DP COL.
 - iii) Dialing from a DP SLT on a DTMF COL.
 - iv) Automatic dialing (Speed Dialing, Redialing, Callback Queuing/Timed Trunk Queuing) from a DTMF SLT on a DTMF COL.



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A Station Outgoing call COL pick up can be restricted in five levels per COL.

Conditions

- o When the outgoing level of the station is lower than the COL outgoing level, the station cannot pick up the COL.
- o The attempt by a KT/VP to pick up an outgoing restriction COL is ignored.
- o When no available COL exists in the COL group which a SLT can pick up, WT is accessed.
- o When Flash is operated at a KT/VP while engaged on an Outgoing Restriction COL, the COL is disconnected and WT is accessed.

Programming

Line Specification Item 5, Outgoing Level (COL No.)
0 to 4 level

Station-Class-of-Service Item 23, CO Outgoing Level (Station No.)

0 to 4 level



		Ć

2.3.0.6 Overriding

The Attendant KT/VP and KT/VP provided with Executive Attribute are available to access various special features.

Condition

o Override includes the following features:

	2.3.0.6.1.	Busy Override	(ATTND)
	2.3.0.6.2.	Do Not Disturb Override	(ATTND)
	2.3.0.6.3.	Executive Override	(Executive KT/VP)
•	2.3.0.6.4.	Call Waiting	(ATTND and Executive KT/VP)

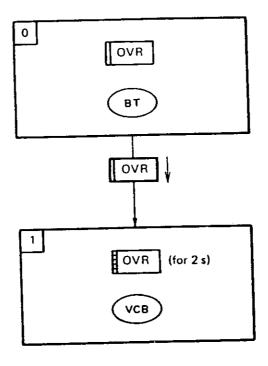
2.3.O.6.1 Busy Override

When the attendant accesses BT while calling an engaged KT/VP (on-hook or SPKR on) on an ICM line, forced ICM calling is available.

Operation Guide

(ATTND BT) OVR

Operation Flow



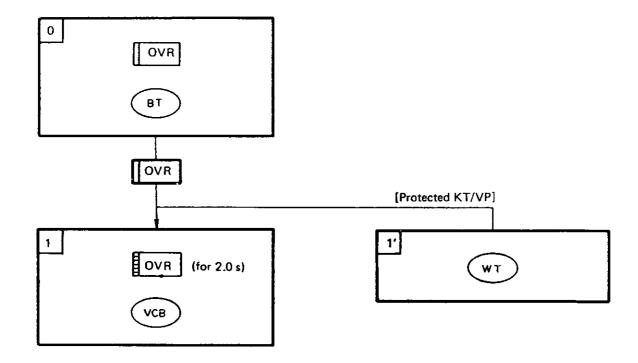
2.3.O.6.2 Do-Not-Disturb Override

When the attendant accesses BT while calling a KT/VP in Do-Not-Disturb mode, forced ICM calling is available.

- Conditions
 - o If the called KT/VP is protected, the call is invalid and B [is accessed.
- Operation Guide

(ATTND BT) OVR

Operation Flow





2.3.0.6.3 Executive Override

The KT/VP with Executive attribute can have access to various special functions.

Conditions

- o Even though the attendant KT Aos the Executive attribute, the Executive feature is not available and operates only as an attendant station on ICM calls.
- o An SLT with Executive Attribute can not use functions other than those relating to ICM calls.

Programming

Station Class-of-Service Item 4, Executive Attribute

Corresponding EXT: Executive Attribution (blink)

ON Flashing Each EXT Steady on OFF

2.3.O.6.3.1 DND/Busy Override

An Executive KT/VP can have access to the KT/VP that is set for DND or Off-hook Signal Deny on an ICM call.

2.3.O.6.3.2 ICM Call Priority

When an ICM call originating from an Executive KT/VP arrives at a KT/VP that is being called from an ordinary station (not ATTND or Executive), the preceding call is blocked and accessed to BT, and Interrupt Tone is sounded instead of bust tone and ICM Voice Call is heard at the called KT/VP.

2.3.0.6.3.3 Executive Automatic Add-On



When an ICM call is originated from an Executive KT/VP to a busy SLT, Add-On Conference is established following the Add-On Tone. (See Section 2.3.C.11.1 Add-On Conference.)

Conditions

o When the called SLT is originating a COL/ICM call or engaged in a COL/ICM Conference to full capacity, override is disabled and BT is accessed at the calling KT/VP.

2.3.O.6.3.4 Executive COL Monitor

A COL call in Privacy status can be entered from an Executive KT/VP without sounding the Add-On Tone.

Conditions

- o When entering a COL call in Privacy Release status or COL on Conference Hold, the Add-On Tone is sent to the COL.
- o A COL being a dialed can not be entered.

Operation Guide

```
(Off-hook or SPKR on) COL

(On-hook and SPKR off) COL + (SPKR)
```

2.3.O.6.3.5 Hot Line

An ICM line assigned to Hot Line can be picked up for originating a call from the Executive KT/VP.

Programming

Line Specification Item 1: Line Class (ICM No.)
18: Hot Line



2.3.0.6.4 Call Waiting

A call overridden by a KT/VP with Attendant or an Executive Attribute is automatically restored when the overriding call is finished.

Conditions

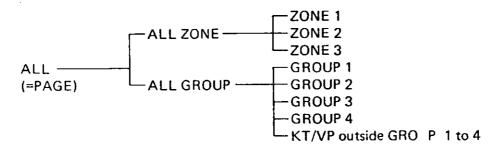
- o BT is accessed by the caller of the overridden call while the overriding call is in progress.
- o During this time, there is no timeout for the BT.
- o The call cannot be restored if the caller disconnects while accessing the BT.

2.3.P.1 Paging Call

A station user can originate a Paging Call.

Conditions

o There are ten Paging Call types:



- o Quick Mode Operation is available with the Direct Page Keys (PAGE, ALL, ALL ZONE, ALL GRP, ZONEn, PAGEn). Press the desired Direct Page Key while on-hook with the SPKR off and the speaker goes an automatically. (See Section 2.3.Q.1 Quick Mode Operation.)
- o Refer to the following sections for key assignments.
 - 2.3.A.3 Automatic ICM Termination
 - 2.3.F.2 Flexible Key Assignment
- o Paging functions are classified as follows:
 - 1. All Call with Meet-Me
 - 2. All Zone Call with Meet-Me
 - 3. All Group Call with Meet-Me
 - 4. Zone Call with Meet-Me
 - 5. (ICM) Group Call with Meet-Me
 - 6. Attendant Paging CALL with Meet-Me

(2.3.A.1.8) Chain Call

(2,3,H,1) Handsfree Stations

(2.3, H.3.5) Automatic Hold

(2.3.1.1) ICM Calling

(2.5.1.1)

(2.3.M.2) Meet-Me

(2.3.0.1) On Hook Dialing

o Refer to the following for time setting to terminate a page:

Programming System Constants Item 3: Page Timeout

1 to 255 Seconds

0: No Function

Default is 10 seconds.

P

2.3.P.1.1 All Call with Meet-Me

After seizing an ICM line, artivate All Call with Meet-Me facility by pressing the ALL or PAGE key or dialing a specified number.

(The Meet-Me facility is not available by only pressing Page key.)

Conditions

- o All Call is available only at the KT/VP where the following conditions are entirely satisfied.
 - i) Assigned to the same tenant as the calling station.
 - ii) No other call is in progress.
 - iii) Station Class-of-Service 'All Call Deny' is set to allow (lit).
 - iv) Station Class-of-Service 'Off-hook All Call Deny' is set to allow (lit) or on-hook and speaker off where denied (flashing).
- o Zone speakers 1 to 3 are also eligible.
- o BT is accessed when another station of the same stenant is performing All Call, All Group Call, or Group Call. (See Section 2.3.A.1.1 Attendant Call Priority.)
- o All Call terminates after a specified programmable time and is held in Meet-Me status.
- o All call is not available when no idle ICM line exists.
- o BT is accessed when no idle called KT/VP exists.
- o The Page Key is a Press-to-Talk Key, and paging is possible only while the key is pressed.

Programming



Each station Steady on: allow Flashing: deny

Operation Guide

or

(Off-hook or SPKR on) ALL or PAGE (Press-to-Talk)

2,3.P.1.2 All Zone Call with Meet-Me

After seizing an ICM line activate All Zone Call with Meet-Me by pressing the ALL ZONE key or dialing a specified number.

Conditions

- o Call from Tenant B is not possible.
- o BT is accessed when another station the same tenant is performing All Call, All Zone Call, or Zone Call. (See Section 2.3.A.1 1 Attendant Call Priority.)
- o All Zone Call terminates after a specified time programmable and is held in Meet-Me status.
- o All Zone Call is not available when no idle ICM line existes.
- o When only one external speaker is connected without using the ZPAD-ME card, System Constants Item 14, 'External Paging Speaker' should be assigned as '1'.

Programming

Station Class-of-Service Item 17, Paging Call Access Deny

Each station

Steady on: allow Flashing: deny

System Constants Item 14: External Paging Spea.

kers (Tenant A/B)

0: No Zone Speaker

1:1 Zone Speaker

2:2 Zone Speaker

3:3 Zone Speaker

Default is 0 (No Zone Speaker)

Operation Guide

ОГ

(Off-hook or SPKR on)

ALL ZONE

2,3,P.1,3 All Group Call with Meet-Me

After seizing an ICM line, activate All Group Call with Meet-Me facility by pressing the ALL GROUP key or dialing a specified number.

Conditions

- o All Group Call is available only at the KT/VP where the following conditions are entirely satisfied.
 - i) Assigned to the same tenant as the calling station.
 - ii) No other call is in progress.
 - iii) Station Class-of-Service All Call Deny is set to allow (lit).
 - iv) Station Class-of-Service 'Off-hook All Call Deny' is set to allow (lit) or on-hook and speaker off where denied (flashing).
- o BT is accessed when no called KT/VP exists.
- o BT is accessed when another station of the same tenant is performing ALL Call, All-Group Call, or Group Call. (See Section 2.3.A.1,1 Attendant Call Priority.)
- o All Group Call is not possible when no idle ICM line exists.
- o All Group Call terminates after a spesified time (programmable) and is held in Meet-Me status.

Programming

Station Class-of-Service Item 17: Paging Cail Access Deny

Each Station

Steady on: allow

l ∫ Flashing:

deny

P

Operation Guide

or

(Off-hook or SPKR on)

ALL GRP

2.3.P.1.4 Zone Call with Meet-Me

After seizing an ICM line, activate Zone Call with Meet-Me facility by pressing the ZONEn key or dialing a specified number.

Conditions

- o BT is accessed when another station in the same tenant is performing ALL Call, All Zone Call, or Zone Call. (See Section 2.3.A.1.1 Attendant Call Priority.)
- o Zone Call terminates after a specified time (programmable) and is held in Meet-Me status.
- o Zone Call is not possible when no idle ICM line exists.

(WATSU)

o This feature is not available unless a ZPAD-ME is installed.

Programming

Station Class-off-Service Item 17: Paging Call Access Deny

Each Station | Steady on: allow | Flashing: deny

System Constant Item 14 External Ringing Speakers

(Tenant A or B)

- 0: No Zone Speakers
- 1: 1 Zone Speaker
- 2: 2 Zone Speakers
- 3: 3 Zone Speakers

Example: When Tenant A is "2" and Tenant B is "1", Zone 1 and 2 are assigned to the Tenant A, and Zone 3 is assigned to the Tenant B.

Operation Guide

(DT)
$$\boxed{8} + \boxed{8} + \boxed{2}$$
 or (Off-hook or SPKR on) $\boxed{\frac{\text{ZONE}}{2}}$ (Zone Speaker 2)

(DT)
$$\boxed{8 + \boxed{8 + \boxed{3}}}$$
 or (Off-hook or SPKR on) $\boxed{\frac{\text{ZONE}}{3}}$ (Zone Speaker 3)

2.3.P.1.5 (ICM) Group Call with Meet-Me

After seizing an ICM line a activate All Group Call with Meet-Me facility by pressing the GRPn key or dialing a specified number.

Conditions

- o All Group Call is available only at the KT/VP where the following conditions are entirely satisfied.
 - i) Assigned to the specified ICM Group.
 - ii) Assigned to the same tenant as the calling station.
 - iii) No other call is in progress.
 - iv) Station Class-of-Service 'All Call Deny' is set to allow (lit).
 - v) Station Class-of-Service 'Off-hook All Call Deny' is set to allow (lit) or on-hook and speaker off where denied.
- o BT is accessed when no called KR/VP exists.
- o BT is accessed when another station of the same tenant is performing ALL Call, All Group Call, or Group Call.
- o All Group Call is not possible when no idle ICM line exists.
- o All Group Calls terminate after a specified time (programmable) and are held in Meet-Me status.

Programming

Station Class-of-Service Item 17: Paging Call Access Deny



Each station Steady on: allow Flashing: deny

Operation Guide

(DT)
$$\boxed{8} + \boxed{8} + \boxed{6}$$
 or (Off-hook or SPKR on) $\boxed{\frac{GRP}{1}}$ (Group 1)

(DT)
$$\boxed{8} + \boxed{8} + \boxed{7}$$
 or (Off-hook or SPKR on) $\boxed{\frac{GRP}{2}}$ (Group 2)

(DT)
$$8 + 8 + 8$$
 or (Off-hook or SPKR on) $\frac{GRP}{3}$ (Group 3)

(DT)
$$\boxed{8} + \boxed{8} + \boxed{9}$$
 or (Off-hook or SPKR on) $\boxed{\frac{GRP}{4}}$ (Group 4)

2.3.P.1.6 Attendant Paging Call with Meet-Me

The attendant can perform Paging Call (All Call, Group Call, Zone Call) by using the Direct Page Call keys on the Attendant Console,

Conditions

- o This feature is available when the ATTND KT/VP is off-hook or speaker is on.
- o This feature is not available when no idle ICM line exists.
- o BT is accessed when another attendant of the same tenant is performing a Paging Call.
- o For the details of Paging Call, refer to the following sections: (See Section 2.3.P.1.1 to 5.)
- o When Attendant performs this feature while on a COL call, the COL is automatically placed on Call

Programming

Station Class-of-Service Item 17: Paging Call Access Deny

Each station

Steady on: allow deny

Flashing:

Operation Guide

ALL ALL (ATTND KT off-hook or speaker on) ALL, GRPn, ZONEn **GRP** ZONE

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2.3.P.2 Pickup Restriction

This facility restricts accessable COLs from Stations

Conditions

- o Pickup Restriction corresponding to each COL can be assigned per station.
- o Audible and visible indications relating to pickup restricted COL do not appear at the corresponding KT/VP.
- o A station user cannot disable to access a Pickup Restricted COL.

Programming

Station Class-of-Service Item 25: Pickup Restriction (EXT No.)

Each COL

Restricted:

Flashing

Not restricted: Steady on



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2.3.P.3 Preselection

A KT/VP user can preselect a COL/ICM before seizing the line.

Conditions

- o Preselection is valid for 10 seconds and a station user can seize a COL/ICM by lifting the handset or pressing the SPKR key during this interval.
- o When the preselected COL/ICM line is busy, the line can not be seized.
- o During preselection the COL/ICM key lamp indicates I-USE, and the lamp goes out if the line is not seized within 10 seconds.
- o If there is an incoming call to the station during preselection and the station user lifts the handset or presses the SPKR key, the preselected line is seized even if Automatic Line Answer is assigned. (See Section 2.3.A.4 Automatic Line Answer.)

Operation Guide

(On-hook and SPKR off) COL or ICM or FLT



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2.3.P.4 Prime Station

The station with the lowest number among those that can access a COL is called the prime station and has a special feature for incoming calls.

Conditions

o The Prime Station is not fixed and changes automatically according to the status of each station. For example, if a prime station is removed or released, the next station becomes the prime station.

2.3.P.4.1 COL Incoming Call Answering Position

When there is an incoming call on a COL and no station is assignes to individual ringing or the assigned are in Do-Not-Disturb, Station Forced Released, or not installed, the prime station rings.

Conditions

- o Calls ring even at a prime station set to Do-Not-Disturb.
- o The prime station can be an attendant KT.
- o The incoming call is transferred when the prime station is in (Busy) Call Forward mode.

2.3.P.4.2 Automatic Recall

If an attendant KT does not exist in the same tenant or an attendant KT exists but the COL is pickup restricted, Atutomatic Recall rings at the prime station.

Conditions

- o Ringing is the same as normal COL recall.
- o When the Prime Station is set to Call Forward, the call is transferred.



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2.3.P.5 Privacy

Privacy is provided on COL and ICM calls.

Conditions

- o Privacy Release is possible on COL but not on ICM calls.
- Any COL Add-On Conference performed with three stations is always in Privacy status and Privacy Release is not possible.
- o When a COL is placed on Conference Hold, it is automatically set to Privacy Release.

2.3.P.5.1 Privacy Release

A COL call can be placed on Privasy Release at the engaged KT/VP.

Conditions

- o When Privacy Release operation is complete, a Privacy Release Burst Tone is set to both COL and occupied station(s).
- o The COL that is in Privacy Release mode can be entered from any KT/VP by pressing the correcorresponding COL key.
- o The COL key lamp corresponding to the Privacy Release COL at all KT/VP, except at the engaged KT/VP, flashes in the System Hold pattern.

Operation Guide

(COL Conversation) FEAT + 1

2.3.P.5.2 Privacy Released COL Pickup

COL that is in Privacy Release mode can be picked up at any KT/VP.

Operation Guide

(Off-hook or SPKR on) COL

(On-hook and SPKR off) COL + 1 (SPKR)



2.3.P.5.3 Privacy Restore

A Privacy Released COL can be restored to Privacy.

Conditions

- o When a COL is restored to Privacy, the corresponding COL key lamp at all KT/VP except at the engaged KT/VP, indicates Busy.
- o When the Privacy Restore operation is completed, a CT is sent to the operating KT/VP and COL.

Operation Guide

(COL Conversation) FEAT + 1

A COL private line that can be accessed only from one station is assignable.

Conditions

- o As the Private Line cannot be accessed from other stations, Add On Conference, Transfer, and Camp On are not available.
- o Private Line incoming call rings even though the KT/VP with Private Line is set to Do-Not-Disturb Note that during Off-hook Signal Deny, incoming calls arrive but the ringing tone is not sounded.
- o See Section 2.3.M.3.1.5 Private Line Automatic Answering.

Programming

Station Class-of-Service Item 25: Picup Restriction (all stations of same tenant)

COL No. (Private Line No.)

Steady on: Private EXT No. Flashing: Other EXTs



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2.3.P.7 Programming

This section describes the programming functions. Refer to Section 2.4 Programming Features.

Conditions

o Programming functions are classified as follows:

1.	System Programming Terminal	(ATTND)
2.	Dynamic Programming	(ATTND)
3.	Programming COL Lines	(ATTND)
4.	Programming from KT/VP	(KT/VP)
	Remote Programming	(Personal Computer)



2.3.P.7.1 System Programming Terminal

The Attendant Console is used as a System Programming Terminal to set system data. (See Section 2.4 Programming Features.)

Conditions

- o If there are two attendant consoles in a system, either attendant can be used as system programming therminal, but not both at the same time.
- o When an attendant console is used as a programming terminal, the system continues to operate usually. (See Section 2.3.P.7.2 Dynamic Programming.)
- o Even though an attendant console is used as a programming terminal, the attached KT/VP operates as an attendant KT/VP.
- o Programming operation is started only when the attendant KT/VP is off-hook.

Setting

DSS Programming Overlay-M1 (PROV-M1) and LCD Unit for DSS-M/N (DSLO-M) are required.

■ Operation Guide

(ATTND KT/VP Off-hook)

Number keys specified by PROV-M1 on DSS-M/DSS-N.

2.3.P.7.2 Dynamic Programming

System data programming is possible while the system is operating.

Conditions

- o When the class-of-service of a station is changed while engaged in a call the data base relating to the station is revised on finishing the call.
- o When the line specification of a COL/ICM line is changed while busy, the data base relating to the COL/ICM line is revised on finishing the call.
- o Changes in system data relating to other classes an immediately effected on finishing the entry operation.
- o For details on programming, refer to Section 2.4 Programming Features.



2.3.P.7.3 Programming CO Lines

COLs connected to the system are classified as follows according to their intended use:

2.3.P.7.3.1 Direct Distance Dialing COL

A line from a CO that is connected directly to the system.

Programming

Line Specification Item

1: Line Class (COL No.)

O: DTMF DDD COL 8: PULSE DDD COL

2.3.P.7.3.2 **PBX Line**

A line connected to an Intercom Line of another PBX.

Conditions

o If there is a PBX line, the PBX Outgoing Specific Code should be assigned to the system data.

Programming

Line Specification Item

1: Line Class (COL No.)

2: DTMF PBX Line 10: PULSE PBX Line

2.3.P.7.3,3 **E&M Tie Line**

A line connected to another PBX with an E&M Tie Line. (See Section 2.3.E.2 E&M Tie Line Service.)

Programming

Line Specification Item

1 Line Class (COL No.)

3 E&M Tie Line DTMF

11 E&M Line SF

2.3.P.7.3.4 FX Line

Line from CO outside the local area where the system is installed.

Programming

Line Spec. Item 1 Line Class

1 FX DTMF

9 FX PULSE

2.3.P.7.3.5 WATS

When WATS line is accommodated.

Programming

Line Spec. Item 1: Line Class (COL No.)

4: outward WATS DTMF

5: inward WATS

12: outward WATS PULSE

EX-1232/2464

WATELL

2.3.P.7.4 Programming From KT

Clock and Calendar, and Day/Night Mode are programmed from Ext. No.20 KT.

2.3,P.7.4.1 Clock

Conditions

- o Hour and minute can be set, however second is initialized to 00.
- o WT is accessed when invalid data is entered.
- o CT is accessed on completion of the setting.

Operation Guide

(Off-hook and Idle)
$$_{\cdot}$$
 FEAT +8+1+H+H+M+M

HH: hour 00 to 23 MM: minute 00 to 59

2,3,P.7.4.2 Calendar

Conditions

- o Enter the last two digits of the year, month, date, and day of the week.
- o WT is accessed when invalid data are entered.
- o CT is accessed on completion of the setting.

Operation Guide

(Off-hook and Idle) FEAT + 8 + 2 + Y + Y + M + M + D + D + W

YY: Year (00 to 99) MM: Month (01 to 12)

DD: Day (01 to 31)

W: Day of the week

1: Sunday

2: Monday

3: Tuesday

4: Wednesday

5: Thursday

6: Friday

7: Saturday

P

2.3.P.7.4.3 Day/Night Mode

- Conditions
 - o The mode is switched simultaneously at both tenants A and B.
 - o CT is accessed on completion of the programming.
- Operation Guide

(Off-hook and Idle) FEAT + 8 + * (to Night Mode)

(Off-hook and Idle) FEAT +8 + # (to Day Mode)

2.3.P.7.5 Remote Programming

The EX-1232/2464 equipped with a MODEM card can perform the following fuctions relating to the EX-1232/2464 System Data using a personal computer (PC) via RS-232C interface.

- i) System Data Down Load The system data contained in the EX-1232/2464 is transmitted to the PC. By specifying the Class, Item and Number 1 and Number 2, the corresponding system data is transmitted to the PC. All system data contained in the EX-1232/2464 system can also be transmitted to the PC by a single operation.
- ii) System Data Up Load
 The system data is transmitted from the PC to the EX-1232/2464. By specifying the Class, Item and
 Number 1 and Number 2, the corresponding system data are transmitted to EX-1232/2464.
 Also the entire system data can be transmitted from the PC to EX-1232/2464 by a single operation.
- iii) Edit System Data
 Preparing and revising the system data is possible with the PC console.
- iv) Print Out
 Hard copy prints of the system data corresponding to the specific Class and Item are available.
 Refer to the Package Manual for details.



2.3.Q.1 Quick Mode Operation

This feature is provided to simplify the operation of a KT/VP by automatically turning the SPKR to ON position from an on-hook and SPKR Off position.

2.3.Q.1.1 KT/VP

Quick Mode Operation is available at the KT/VP assigned with the feature.

Conditions

- o Quick Mode Operation is effected when an Idle COL/FLT key is pressed. Preselection is effected, however, when a busy COL/FLT key is pressed.
- Ouick Mode Operation is effected when the Direct Speed Dial key is pressed. In this case, however, Optimized Call Routing is initiated and the FLT key indicates I-USE automatically. This operation is invalid when there is no FLT key.
- o Quick Mode Operation is effected when Speed Dial Operation is performed. In this case, however, Optimized Call Routing is initiated and the FLT key indicates I-USE automatically. This operation is invalid when there is no FLT key.
- Quick Mode Operation is effected when Save Number Radial Operation is performed. In this case, however, the FLT key or COL key on which the Saved Number is assigned also indicates I-USE automatically.
- o Quick Mode Operation is effected when an Idle DSS key is pressed.
- o Quick Mode Operation is effected when an Idle ICM key is pressed.
- o Quick Mode Operation is effected when an Idle PAGE key is pressed.
- o Quick Mode Operation is effected when the Direct Page Call key is pressed.
- o Quick Mode Operation is effected when the Direct Master Group Hunt Key (HNTN) is pressed.
- o Preselection is effected when a busy DSS, ICM, or PAGE key is pressed.

Programming

Station Class of Service Item 8
Quick Mode Deny

Each EXT Steady ON: Allow Flashing: Denv

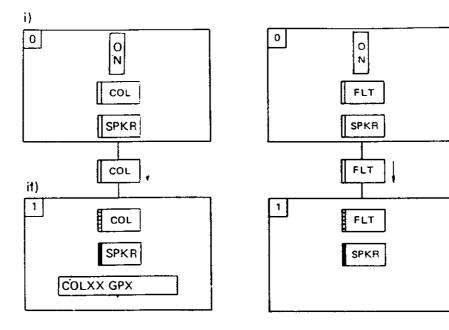
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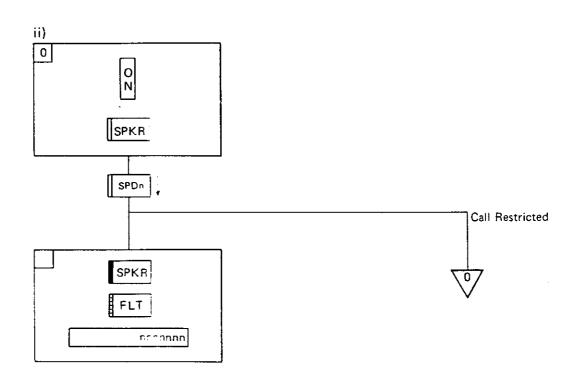
Operation Guide

- 1) On-hook and SPKR off FLT
 - On-hook and SPKR off COL
- 2) On-hook and SPKR off SPDn (direct speed dial access key)
- 3) On-hook and SPKR off DSS
- 4) On-hook and SPKR off (FEAT) + * + n1 + n2
- 5) On-hook and SPKR off (FEAT) + #
- 6) On-hook and SPKR off ICM
- 7) On-hook and SPKR off PAGE
- 8) On-hook and SPKR off PAGE (direct page call key)

ALL, ALL GRP, ALL ZONE GRP 1 to 4, ZONE 1 to 3

9) On-hook and SPKR off HNTn (direct master group hunt key)





2.3.Q.1.2 Attendant

An attendant can use the Quick Mode Operation feature.

Conditions

- o Quick Mode Operation is effected when a DSS key on the attendant DSS is depressed.
- o Quick Mode Operation is effected when the Direct System Speed Dial key on the Attendant DSS is depressed. In this case, however, Optimized Call Routing is initiated and the FLT key indicates I-USE automatically. This operation is invalid when there is no FLT key.
- o Quick Mode Operation is effected when the Direct page call key or the Direct Master Group Hunt key on the Attendant DSS is pressed.

Operation Guide

- o (On-hook and SPKR off) DSS
- o (On-hook and SPKR off) SPDn (Direct speed dial access key)
- o (On-hook and SPKR off) PAGE (Direct page call key)

ALL, ALL GRP, ALL ZONE GRP 1 to 4, ZONE 1 to 3

o (On-hook and SPKR off) [HNTn] (Direct master group hunt key)



Redialing (Saved) 2.3.R.1

After originating a COL call, the station user can save the dialed unmber. At any later time, the number can be dialed by redial operation.

Conditions

- o Up to 32 digits can be saved.
- o When COL Line Class is 2 or 10 (PBX line) and the system data for PBX outgoing Specific Code is dialed from the first digit, a 5-second pause is automatically inserted after the code and saved or repeated.
- o Speed dial with attribute is maintained.
- o Once a saved number is redialed, it disappears. When there is no saved number, the Last Number Redialing feature is automatically effected; when there is a saved dial, the Saved Dial Redialing feature is effected.

2.3.R.1.1 Saving

2.3.R.1.1.1 KT/VP

A KT/VP user can save the dialed number after originating a COL call.

Conditions

o CT is accessed When Saving is complete.

Operation

2.3.R.1.1.2 SLT

The dialed number of a SLT is saved every time a COL outgoing call is finished.

Conditions

o COL Group number that was selected by the SLT is also saved.

2.3.R.1.2 Redialing

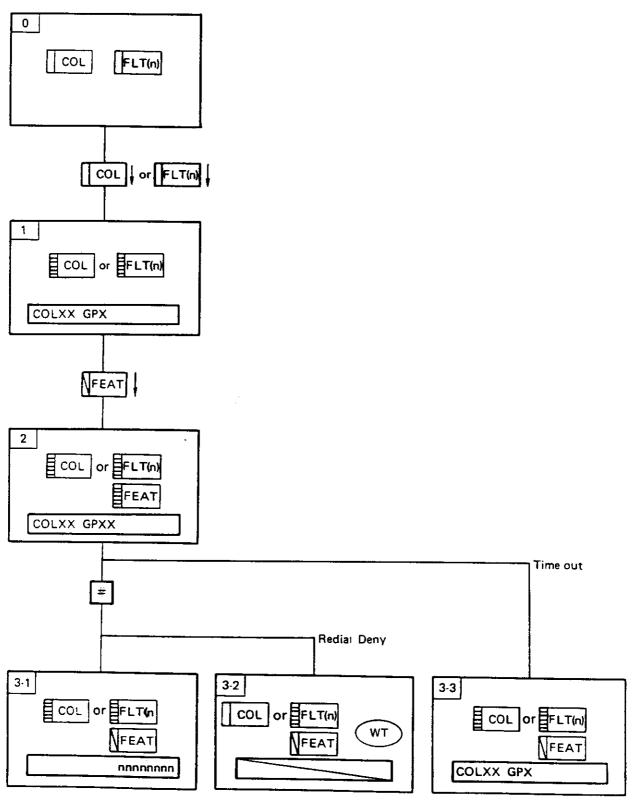
2.3.R.1.2.1 KT/VP

A KT/VP user can redial a saved number when originating a COL.

Conditions

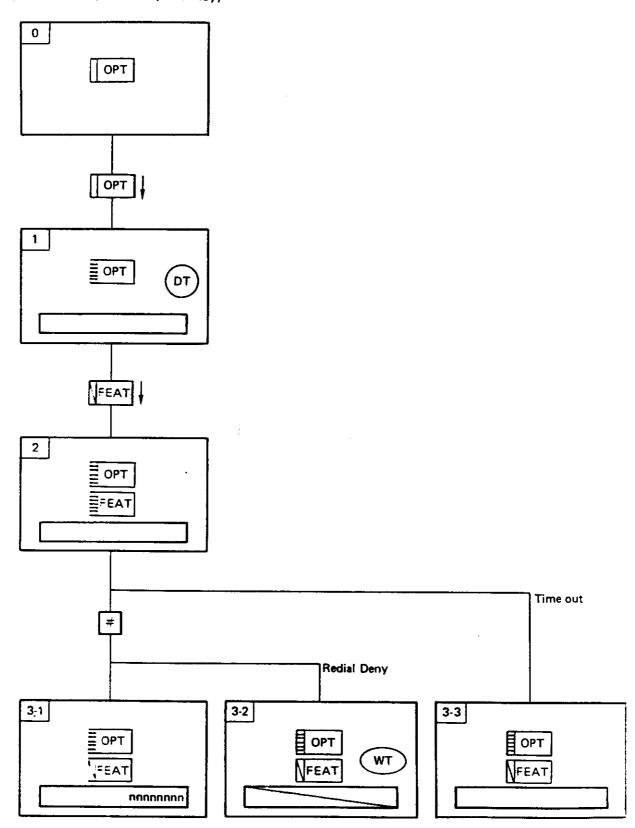
- o When there is no saved number, the Lost Number Redialing feature is effected.
- o A station user can redial on a COL other than the COL from which the dialed number was saved. Note that when the number saved on a PBX line call is redialed on a DDD COL or vice versa, Redialing may be performed incorrectly.
- o To prevent an incorrect connection by picking up a different group when Redialing, Quick Operation automatically seizes an appropriate COL for Redialing.
- Operation Guide

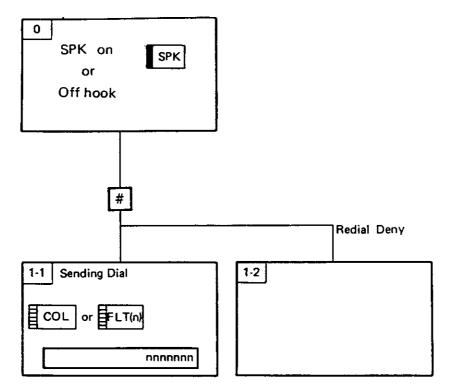
i) Normal Operation (COL or FLT(n) key)



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ii) Normal Operation (OPT Key)





2.3.R.1.2.2 SLT

An SLT user can redial a saved number from a saved COL Group.

- Conditions
 - o The special number of DTMF SLT differs from the one of PULSE SLT.
- Operation Guide

DTMF SLT:

(DT) #

PULSE SLT: (DT) 9 + 8

2.3.S. 1 SCDR (Station Call Dial Reorder)

A printed copy of the recorded details of each COL is available with the SCDR.

Conditions

- o The following printed data are available with the SCDR:
 - i) Sequence Number (SEQ): Sequence number of calls (000 to 999)
 - ii) Trunk Number (TRK): COL number (01 to 24) involed in the Calls.
 - iii) Extension 1 (EXT 1): NUmber of the station that first seized the COL (20 to 83)
 - Extension 2 (EXT 2): Number of the station that next seized the COL (20 to 83) iv)
 - v) Time (TIME): Call start time.
 - Duration (DUR): Call duration in 1-minute units rounded to 1 minute. Note that for originating a call, the call duration counting is started from 20 seconds after the COL is seized.
 - vii) Dial (CALLED NUMBER): Called destination dial number (28 digits or less), excluding invisible attribute.
 - viii) Account Code (ACCT No.): Entered Account Code (6 digits or less).
 - ix) Class (NOTE): I (Incoming call), O (Outgoing call), A (Attendant call), * (Toll call), N (Tenant B)

2.3.S.1.1. COL

Only the data corresponding to the specified COL can be printed out. Note that this is not applicable on incoming calls.

Programming

SCDR Item 1: Print Out CO

Specify CO for output Default is All CO Output

2.3.S.1.2 Stations

Only the data corresponding to the specified station can be printed out. Note that this is not applicable to incoming calls.

Programming

SCDR Item 2: Print Out Stations
Specify EXT for output.
Default is All EXT Output.

2.3.S.1.3 Minimum Time

Only those calls exceeding the specified time (minutes) are printed out.

Programming

SCDR Item 3: Print Out Minimum Time
0: no limit
1 to 30 (minutes)

2.3.S.1.4 Incoming Call

Incoming calls can be specified to be printed.

Programming

SCDR Item 4: Print Out Incoming Calls

0: Print

1: Do not print.

2.3.S.1.5 Account Code

Only outgoing calls or incoming calls bearing account, code can be printed out. (See Section 2.2.3.1.4 KT Display.)

Programming

SCDR Item 5: Print Out Calls With Account Code

0: No Limit

1: Incoming and Outgoing Calls With Account Code Input Only

2: Outgoing and Incoming Calls With Account Code Input Only

3: Calls With Account Code Input Only



2.3.S.1.6 Toll Call

Outgoing calls other than Toll Calls can be assigned not to be printed out.

Programming

SCDR Item 6: Print Out Toll Call

0: no limit

1: Toll Call/Incoming Call only.

2.3.S.1.7 Format

Figure 2.3.S.1 shows the format of the SCDR output.

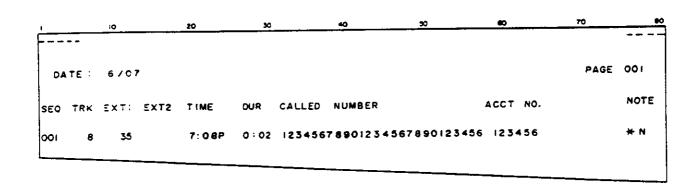


Figure 2.3.S.1 SCDR Output Format

2.3.S.1.8 Account Code

Account Code to be printed out with the SCDR can be entered from the KT/VP. (See Section 2.2.3.1.4 KT Display.)

Conditions

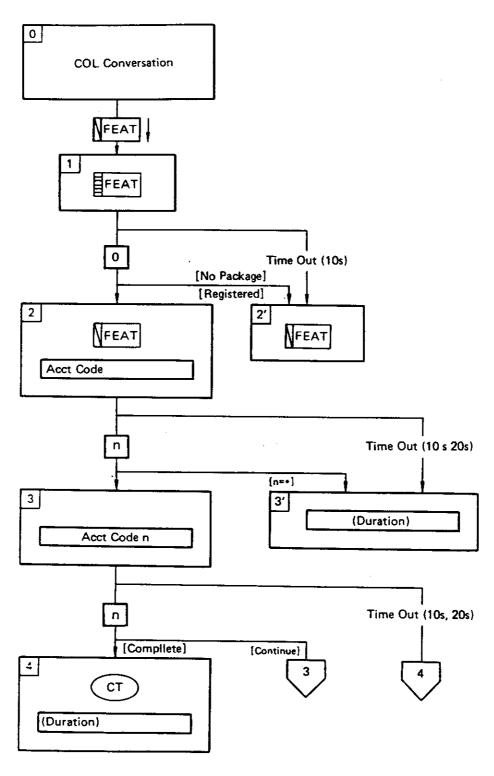
- o Account Code should not exceed six digits.
- o Only one registration is permitted per call.
- o Registration ends with the input of the end code *, interdigit timeout (10 s), overall timeout (20 s), or six digits.
- o If registration is suspended by other operation, the digits already entered are registered.

2.3.S.1.8.1 Input From KT/VP

The Account Code can be entered during the COL call.

Operation Guide

■ Operation Flow



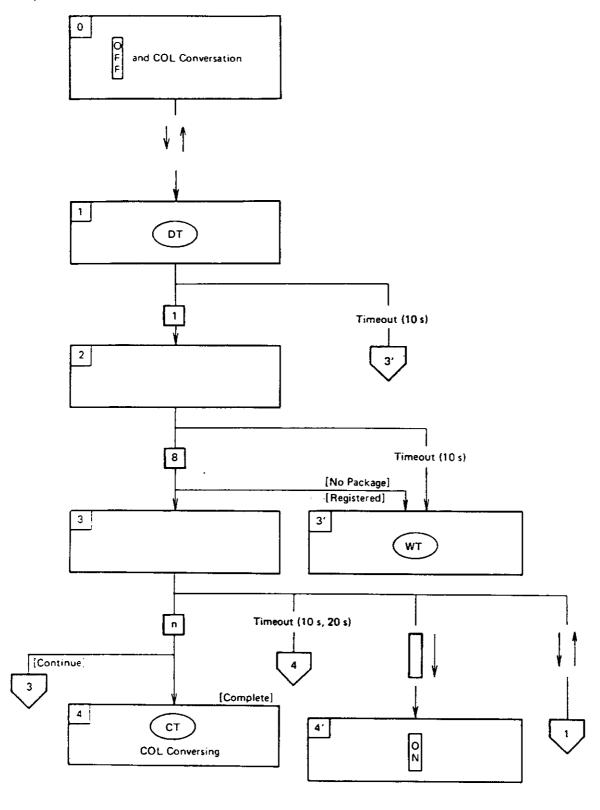
2.3.S.1.8.2 Input From SLT

The Account Code can be entered after placing the COL on-hold.

Condition

When the entry of the Account Code is finished at an SLT, the hold is automatically released and the SLT is reverted to the COL.

Operation Guide



2.3.S.1.9 System Data Printout

The System Data can be printed out with the SCDR when the power of the system is turned on.

Conditions

- i) The system is not operational until the print out ends.
- ii) Printing is available only in Backup Mode.

Operations

1 Set the DIP switch on the M/KCPU-ME card as follows:

- 2 Turn power to on (if power is off) or turn RESET switch to on (if power is on).
- 3 Set the DIP switch as follows after printing starts:

4 Set the RESET switch to on after printing ends.

2.3.S.2 Secretarial Hot Line Termination

An ICM Hot Line between a KT/VP with Secretary attribute (called Secretary) and a KT/VP with Executive attribute (called Boss) can be installed.

Conditions

- The Secretary and Boss should be programmed with as the destination of the Automatic ICM Termination. (See Section 2.3.A.3 Automatic ICM Termination.)
- o At least one of the ICM lines within the same tenant should be assigned as Hot Line (where more than one pair exist, lines should assigned in pairs). (See Section 2.3.1.2 ICM Path Termination.)
- o One Secretary can attend two Bosses. In this case, the Secretary should have a sets of Automatic ICM Termination.
- o When the Boss sets Call Forward to the Secretary, all incoming calls to Boss (except from Secretary) are transferred to Secretary. (See Section 2.3.C.4 Call Forward.)

Programming

See Section 2.3.A.1.3 Automatic ICM Termination. 2.3.1.2 ICM Path Termination. 2.3.S.6 Station Class-of-Service.

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When originating a COL outgoing call, the COL is switched to engaged status the moment the Sender Timeout condition is met.

Conditions

- o The system sender (if activated) is disconnected with Sender Timeout.
- o Call duration counting on a KT display starts at this moment.
- o If a DTMF SLT is making a COL call, the MF Receiver is disconnected at this moment.

Partial Dial Condition 2.3.S.3.1

When dialing is started at a station that is originating a COL call, the system starts to monitor the entry with an inter-digit timer. Monitoring continues for 10 seconds; if there is no dial input or Speed Dial input during this time, Sender Timeout occurs. (See Sectin 2.3.A.5 Automatic Trunk/Station Release.)

Conditions

- o Call duration count output to the SCDR starts 20 seconds after the COL is seized, and not after the Partial Dial Condition.
- o Overall Timer monitoring ends when Partial Dial Condition monitoring starts.

Overall Timer 2.3.S.3.2

When dialed numbers are sent with Speed Dialing, Redialing, Callback/Times, Trunk Queuing, from a station upon seizing a COL, Sender Timeout occurs when the system data assigned Sender Timeout Time elapses.

Programming

System Constants Item 2, Sender Timeout 10 to 255 (seconds) 0: No Function

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2.3.S.4 Soft Ringer

The KT/VP automatically muting mutes incoming rings while the KT/VP is in off-hook or SPKR on status.

- Conditions
 - o Voice Synthesizer Services from the speaker such as Reminder and Prompt, are also muted.
 - o While the Built-in Speakerphone or On-hook Dial/Call Monitor is operating, only the incoming ring is muted and mixed.



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2.3.S.5 Speed Dialing

Any station, except PULSE SLT, can use the System/Station Speed Dialing on a COL.

Conditions

- o Any station can access the System Speed Dial, with a capacity of up to 90 destinations (No. 00 to 89), allocated to its tenant.
- o Each station is provided with a Station Speed Dial with a capacity of up to 10 destinations (No. 90 to 99). Each station can arbitrarily assign the speed dial for its individual use.
- o Each destination number should be within 16 digits.
- o System Speed Dial is programmed with the system data.
- o The System Speed Dial can be assigned the invisible attribute to avoid display on the KT display or SCDR.
- o System Speed Dials numbers are excluded from Toll Restriction. (See Section 2.3.S.6 Station Classof-Service.)
- o Stations denied Speed Dial can be specified with the system data. (See Section 2.3.S.6 Station Classof-Service.)
- o Any station, except for PULSE-SLT, can transmit system/station speed dial numbers.

2.3.S.5.1 Speed Dial Access

Conditions

- o Access to the System and Station Speed Dials are the same.
- o KT/VP and attendant console are provided with Direct Station Speed Dialing and Direct System Speed Dialing. (See Section 2.3.F.2 Flexible Key Assignment)



2.3.S.5.1.1 KT/VP

- Conditions
 - o COL is disconnected and WT is accessed, when Speed Dial without assigned dial numbers is accessed.
- Operation Guide

1st time

2nd time or more. (When transmitting from SPD after DT)

nn: SPD No.

2.3.S.5.1.2 SLT

- Conditions
 - o Valide only from DTM to SLT.
 - o SLT can access a Speed Dial number only when originating COL outgoing calls.
 - o WT is accessed when Speed Dial number without an assigned dial number is accessed.
- Operation Guide

nn: SPD No. m: 0 to 7

Each station can be assigned with its individual Station Speed Dial numbers.

System Speed Dial is programmable only from the Attendant Console or Ext. No. 20 KT/VP.

Conditions

- o A one-second pause is set with "n". Dial "" is registered with "". Pause and Dial "" are regarded as two digits each.
- o The 30-second overall timer monitors the registration, and registration finishes with timeout.
- o Registration finishes with inter-digit timeout (10 seconds) and any operation other than dial entry.
- o Registration finishes and CT is accessed when the 16th digit is entered.
- o CT is accessed when registration is completed with timeout.
- o System Speed Dial can also be entered from station No. 20 KT/VP. However invisible attribute can not be assigned. Data input operation is the same as with the Attendant Console.

2.3.S.5.2.1 KT/VP

Operation Guide

2.3.\$.5.2.2 SLT

Operation

Note: Only DTMF SLT.



2.3.S.5,2,3 Attendant

Programming

Speed Dial

Item 1 System Speed Dial (Tenant A/B X system speed Dial No. (0 to 89)) Dial 16 digits or less

Item 2 System Speed Dial Invisible (Tenant A/B X System Speed Dial No. (0 to 89))

0: No attribute 1: With attribute

Item 3 Station Speed Dial (EXT 1 to 64 X Station Speed Dial No. 1 to 10) Dial 16 digits or less

Direct Speed Dialing 2.3.5.5.3

A Direct Speed Dial access key can be assigned to KT/VP or ATTND.

- **■** Conditions
 - o Refer to Section 2.3.F.2 Flexible Key Assignment.
 - o Quick Mode Operation is available. (See Section 2.3.Q.1 Quick Mode Operation.)
- Operation Guide
 - o Normal (COL DT or during COL call) SPD n
 - o Quick Mode Operation (On-hook and Speaker Off) | SPDn |

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2.3.S.6 Station Class-of-Service

Attributes of the stations are specified and various functions can be restricted.

2.3.S.6.1 Attribution

KT/VP can be assigned the following five attributes.

- 1. Secretary Attribution
- 2. Protected Attribution
- 3. Message Attribution
- 4. Quick Mode Deny Attribution
- 5. Executive Attribution
- 6. Versa Phone Attribution

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2.3.S.6.1.1 Secretary Attribute

Secretarial Hot Line is available.

Programming

Station Class-of-Service Item 2: Secretary Attribute

Each EXT

With attribute (flashing)
Without attribute (steady on)

2.3.S.6.1.2 Protected Attribute

Protected from Do-Not-Disturb Override.

Programming

Station Class-of-Service Item 3: Protected Attribute

Each EXT

With attribution (flashing)
Without attribution (steady on)

2.3.S.6.1.3 Message Attribution

An station on which the Message Wait feature can be registered (having a MSG key assigned) should be assigned.

Programming

Station Class-of-Service Item 7: Message Attribute

Each station { Flashing: With attribute

Steady on: No attribute

2.3.S.6.1.4 Quick Mode Deny

Quick Mode Operation is available.

■ Programming

Station Class-of-Service Item 8 Quick Mode Deny

Each station

Flashing: Allow

Steady on: Deny

2.3.S.6.1.5 Executive Attribute

An Executive Override and access to the Secretarial Hot Line are available.

Programming

Station Class-of-Service Item 4: Executive Attribute

Each station

| Flashing:

With attribute

Steady on:

No attribute

2.3.S.6.1.6 Versa Phone Attribute

Assign the Versa Phone Attribute without fail when a Versa Phone in connected.

Each station

(Flashing: With attribute

Steady on: No attribute

2.3.S.6.2 Access Deny Class

Certain functions can be denied at the desired station.

2.3.S.6.2.1 Off-hook Signal Deny

Ringing on incoming calls can be denied while in off-hook or SPKR on status.

Conditions

- o Valide only for KT/VP.
- o Excludes Consultation Hold, Reminder, and short ringing tones.
- o COL RGT rings when the status reverts to on-hook and speaker off.
- o When the called KT/VP enters off-hook or SPKR on status during ICM Voice/Tone Call, except on answering the ICM call with the Automatic Line answer function, the ICM Voice/Tone Call is blocked and the caller accesses BT. In this case ICM Voice/Tone Call is not resumed.

Programming

Station Class-of-Service Item 9: Off-hook Signal Deny

Each station

Steady on:

allow

l Flashing:

deny

2.3.S.6.2.2 Off-Hook All Call Deny

During off-hook or SPKR on status, All Page, All Zone Call and All Group Call ringing can be denied.

Conditions

- o Ringing resumes when the status reverts to on-hook and speaker off, provided that the Call is continued.
- o Valid only for KT/VP.

Programming

S

Station Class-of-Service Item 10: Off-Hook All Call Deny

Each station

Steady on:

allow

Flashing:

deny

All Page, All Group Call, and All Zone Call ringing can be denied.

Conditions

1

- o Valied only for KT/VP.
- Programming

Station Class-of-Service Item 11: All Call Denv

Each station

Steady on: allow

| Flashing: deny

2.3.S.6.2.4 Hold Recall Deny

Hold Recall and Camp-on Recall ringing can be denied.

- Conditions
 - o When the called station is denied ringing on Hold Recall and Camp-on Recall, Attendant Recall operates in case of COL call, and the line is disconnected in case of an ICM call.
- Programming

Station Class-of-Service Item 12: Hold Recall Deny

Each station

Steady on:

allow

Flashing:

deny

2.3.S.6.2.5 Speed Dial Access Deny

Access to System/Station Speed Dial can be denied.

Programming

Station Class-of-Service Item 13: Speed Dial Access Deny

Steady on:

allow

Each station

l Flashing:

deny

2.3.5.6.2.6 Toll Speed Dial Access Deny

Excluding the System Speed Dial from Toll Restriction can be denied.

Programming

Station Class-of-Service Item 14: Toll Speed Dial Access Deny

Each station

Steady on:

allow

l Flashing:

denv

2.3.S.6.2.7 COL Automatic Line Answer Deny

COL Automatic Line Answer can be denied.

- Conditions
 - o Valid only for KT/VP.
- Programming

Station Class-of-Service Item 15: CO Automatic Answer Deny

Each station

Steady on: allow

l Flashing: deny

2.3.S.6.2.8 ICM Automatic Answer Deny

ICM Automatic Answer can be denied.

- Conditions
 - o Valid only for KT/VP.
- Programming

Station Class-of-Service Ltem 16: ICM Automatic Answer Deny

Each station

Steady on: allow

Flashing: deny

2.3.S.6.2.9 Paging Call Access Deny

Paging Calls (ALL Call, All Zone Call, All Group Call, Zone Call, Group Call) from an station can be denied.

- Conditions
 - o WT is accessed when Paging Call access is made from the denied station.
 - o Direct Page Access is ignored.
- Programming

Station Class-of Service Item 17: Paging Call Access Deny

Each station

Steady on: allow Flashing: deny

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2.3.S.6.2.10 Call Forward Deny

A station can be denied executing (Busy) Call Forward.

Conditions

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- o WT is accessed when (Busy) Call Forward is executed at a denied station.
- Programming

Stattion Class-of-Service Item 18: Call Forward Deny

Each station

Steady on: allow

Flashing:

deny

2.3.S.6.2.11 Do-Not-Disturb Deny

A KT/VP can be denied executing Do-Not-Disturb.

- Condition
 - o Do-Not-Disturb is ignored at a denied KT/VP.
- Programming

Station Class-of-Service Ltem 19: Do-Not-Disturb Deny

Each station

Steady on: allow

| Flashing: denv

2.3.S.6.2.12 Optimized Call Routing Access Deny

A station can be denied executing Optimized Call Routing Access.

Programming

Station Class of Service Item 20: Optimized Call Routing Access Deny

Each station

Steady on: allow

\ Flashing: deny

2.3.S.6.2.13 Equal/SCC Access Deny

A station can be denied executing Equal/SCC Access.

Programming

Station Class of Service Item 21: Equal/SCC Access Deny

Each station

Steady on: allow

Flashing:

deny



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2.3.S.7 Station Lock Out

The operation of a KT/VP can be set to lock out or release Incoming with the prearranged Personal ID code. (Incoming colls are possible.)

2.3.S.7.1 Personal ID Code Registration

The Personal ID Code can be coded from the KT/VP or the Programming Terminal.

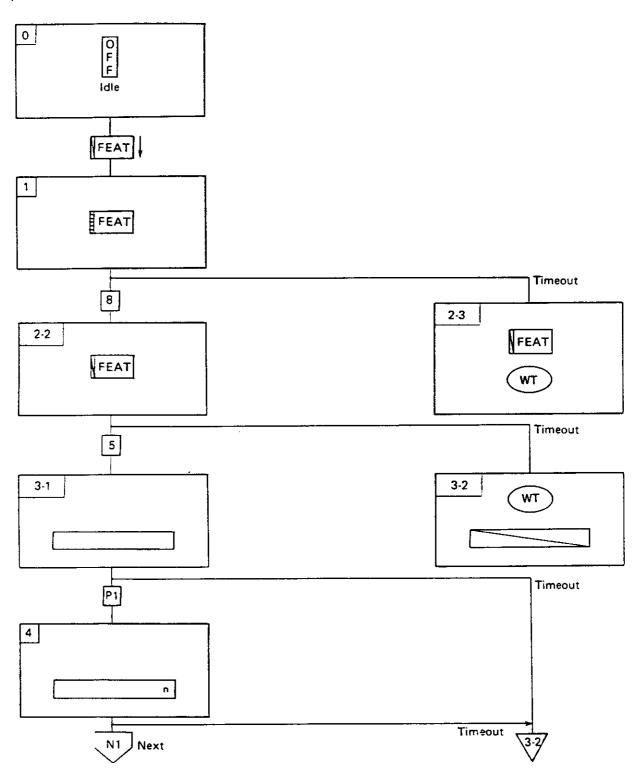
- Conditions
 - o The default value of the Personal ID Code is Null Code.
 - o The Personal ID Code can be confirmed at the Programming Terminal.
- Operation Guide

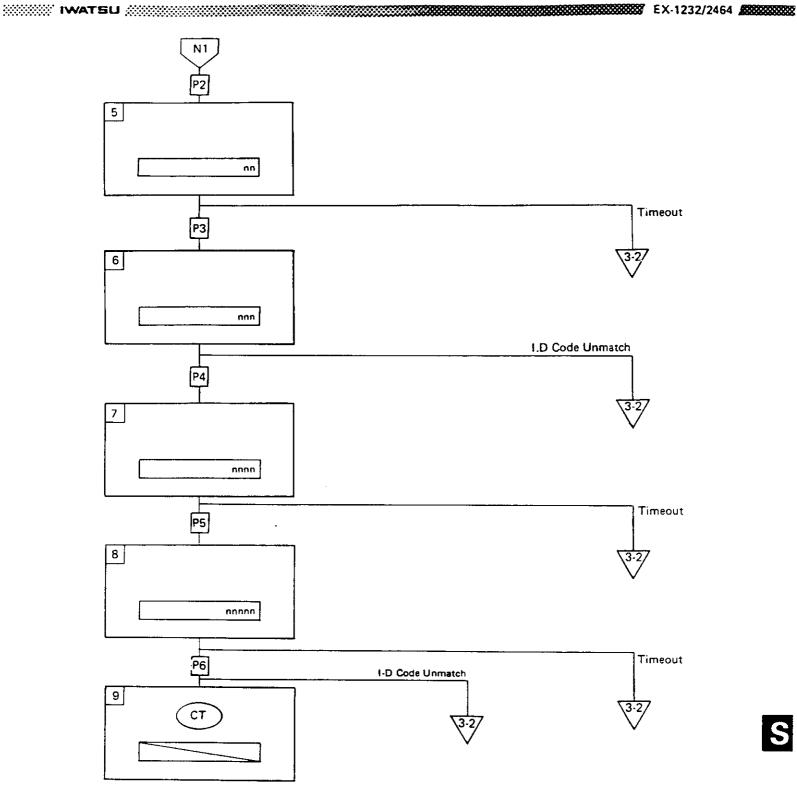
(Off-hook and idle)

p1 p2 p3: Old Personal ID code. p4 p5 p6: New Personal ID code. $0 \le Pi \le 9$

Programming

Station Class of Service Item 27: Personal ID Code (EXT No.)
Personal ID Code
Code Code 0 to 9





2.3.S.7.2 Station Lock Out

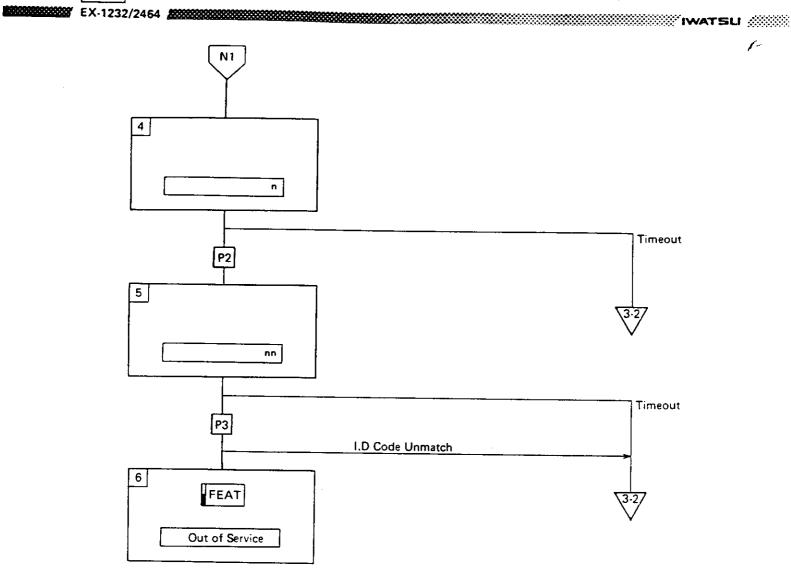
The KT/VP is placed in a Lock Out status.

- o Conditions
- o Operation Guide
- o Operation Flow
- Conditions
 - o All operations at a KT/VP placed in Lock Out status are disabled, except Station Lock Out Release.
 - o Duriong Lock Out status, the FEAT key flashes and a message appears on the display.
- Operation Guide

(Off-hook and Idle)

P1 P2 P3: Personal ID code

 $0 \leq \text{Pi} \leq 9$



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2.3.S.7.3 Station Lock Out Release

Station Lock Out Release is executed at the KT/VP.

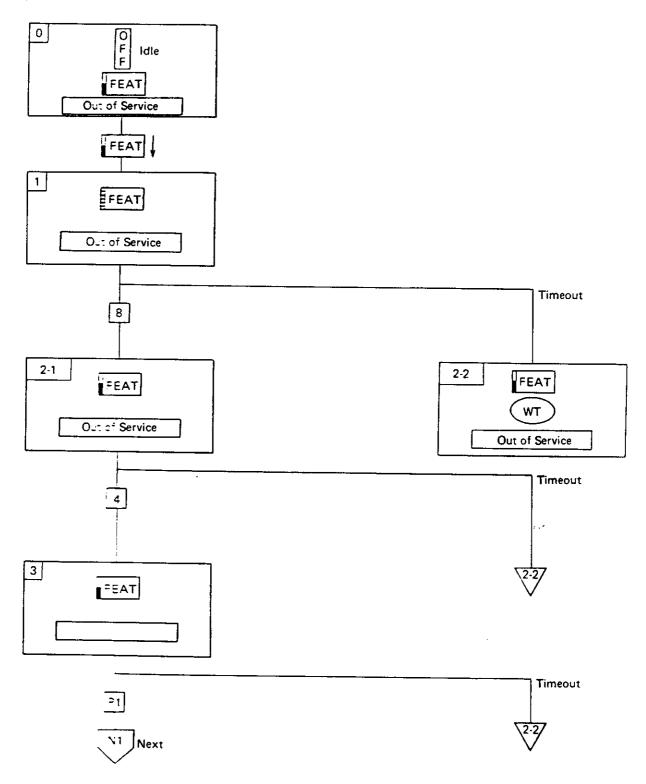
- Conditions
 - o The Attendant can execute Station Lock Out Release. (Refer to 2.3.A. 1.13 Station Forced Release.)
 - o The FEAT lamp and display revert to the normal state when the Station Lock Out Release is effected.
- Operation Guide

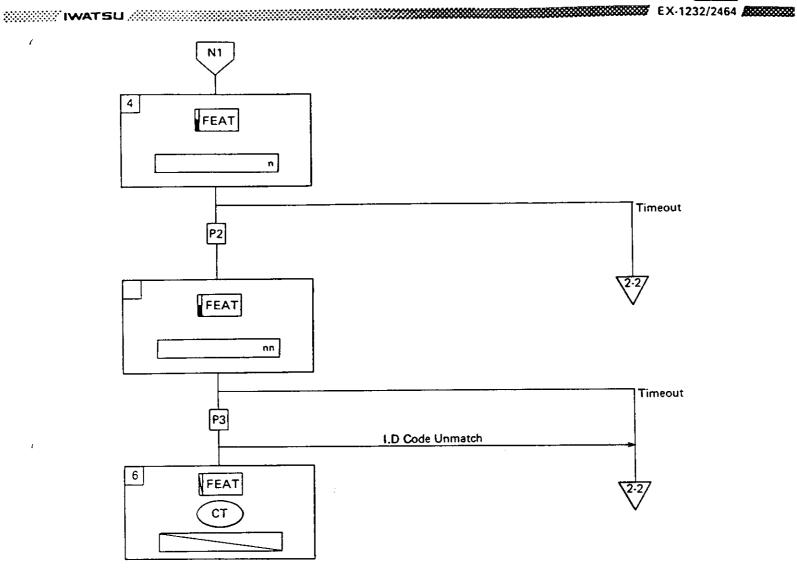
(Off-hook and Idle)

P1 P2 P3: Personal ID code

$$0 \leq Pi \leq 9$$

Operation Flow







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2.3.S.8 System Alarm Indications

The following describes the System Alarm Indications and the contents.

2,3.S.8.1 Program Check Sum Error

Sum Check of the system program is executed in units of 32 kilobytes.

When an error is detected, LEDs on the CCPU-M card indicate the following and the system stops operating.

LEDs 0 to 3 correspond to binary bits 0 to 3 and indicate PROM# (1 to 8).

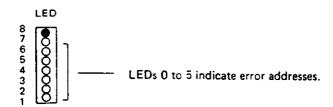


Conditions

- i) Sum check is always executed when the system power is switched on.
- ii) Lack of the optional package ROM is not an error.

2.3.S.8.2 Memory Read-After-Write Check Error

When an error is detected in the system memory by Read-After-Write check, LEDs on the M/K CPU-ME card indicate the following and the system stops operating.



Conditions

The check is executed when the system power is switched on. To avoid the entire memory from being destroyed, checking is executed only when initialization is effected with clear mode.



2.3.S.8.3 Overrun Error

If the execution of the system program does not end within a specified time, an overrun error is detected. In this case, the LEDs on M/KCPU-ME card indicate the following and the system stops operating.



The following describes the control of system data/backup data when the system power is switched on.

2.3.S.9.1 Clear Mode

All data in the memory is cleared in this mode, and all functions of the system are set to the default values. (See Section 2.4 Programming Features.) Also, Memory Read-After-Write is executed.

Conditions

Clock and calendar should be set after initialization.

- Setting
 - 1 Set the DIP switch on the M/KCPU-ME card as follows:



2 Turn on cower (if power is off) or the RESET switch (if power is on).

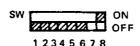
2.3.S.9.2 Backup Mode

In this mode, the memory (excluding system data and backup data) is cleared. Therefore the previously set system data is saved and backup data is not destroyed.

Conditions

If system data is not set (default values are used), backup data is not saved unless set to this mode.

- Setting
 - 1 Set the DiP switch on the M/KCPU-ME card as follows:



2 Turn or power (if power is off) or turn the RESET switch twice to on. (if power is on).

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2.3.T.1 Tenant Service

The system can be used with a single tenant or two tenants.

2.3.T.1.1 Stations

All stations of the system belong to either tenant A or tenant B. Calling or transfering between stations assigned to different tenants is not possible.

Programming

Station Class-of-Service Item 1: Tenant Group B

Each station

Steady on: Tenant A Flashing: Tenant B

2.3.T.1.2 COL

All COLs of the system belong to either tenant A or tenant B and allowed to be accessed only from the stations assigned to the same tenant. Audible and visible indications are provided only for those stations which belong to the same tenant.

Programming

Line Specification Item 2: Tenant Group 0: Tenant A 1: Tenant B

2.3.T.1.3 ICM

All ICMs of the system can be asigned to tenant A, tenant B, or tenant AB. ICM lines assigned to tenant A or B are able to be seized only from stations assigned to the same tenant. ICM lines assigned to tenant AB are able to be seized from stations in either tenant A or tenant B, but once seized, the line is considered as belonging to the same tenant as the station that seized it.

Programming

Line Specification Item 2: Tenant Group

0: Tenant A

1: Tenant B

2: Tenant AB

2.3.T.1.4 External Paging Unit

An External Paging Unit connected to the system is exclusively for tenant A. Extensions belonging to tenant B is not a lowed to use it.

Conditions

All Call from Tenant B excludes the External Paging Unit.



2.3.T.1.5 Paging Call Link

A System Link for Paging Call is assigned to each of tenants A and B. A station should use the link assigned to the same tenant.

2.3.T.1.6 SCDR

The SCDR is shared by tenants A and B, and data for both tenants is printed on the same SCDR.

Conditions

Setting of SCDR printing conditions (system data SCDR Items 3 to 6) is common for both tenants A and B and cannot be set separately.

2.3.T.2 Timed Trunk Queuing

When reservation is made at a KT/VP while calling or engaged on a COL, a Call-back from the COL can be received after elapse of the specified time (1 to 20 minutes).

Conditions

- o Only one reservation, including Call-back Queuing, is possible per KT/VP.
- o When the COL is engaged at the specified time (1 to 20 minutes), the status becomes the same as Call-back Queuing. (See 2.3.C.3.1 Callback Queuing.)
- o After the Call-back is activated, the status becomes Call-back Queuing.
- o When the Call-back is picked up, the reserved dialed number is automatically sent.
- o The Call-back time (common to the system) can be assigned from 1 to 20 minutes.

Programming System Constants Item 7: Timed Trunk Queuing Interval 0: No Function
1 to 20 minutes
Default 10 minutes

2.3.T.2.1 Registration

Conditions

- o On finishing registeration, the COL is disconnected and CT is accessed.
- o When the call is by Through Dialing from a KT/VP with Outgoing Restriction, the operation is ignored.

Operation Guide

2.3.T.2.2 Cancellation

Conditions

- o Same as cancellation of Call-back Queuing. (See Section 2.3.C.3 Call Back Queuing.)
- o CT is accessed on finishing the operation if Callback/Timed Trunk Queuing is registered; otherwise WT is accessed.

Operation Guide

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An engaged COL/ICM call can be placed on hold at the station and transferred to the desired station.

Conditions

- o Upon transfer, a Transfer Tone is sent to the COL or ICM line.
- o COL Transfer to a station with Pick Up Restriction is invalid and immediately reverts to Hold Recall.
- o A COL on Hold Recall cannot be transferred.

2.3.T.3.1 KT/VP

A COL/ICM placed on-hold can be transferred by pressing the TRN key or pressing the DSS key while engaged in a COL call.

Conditions

- o Valid only for the latest line if multiple COL/ICMs are placed on hold with the TRN key.
- o When the TRN key is pressed while engaged on a COL call, the COL is automatically placed on hold and an idle ICM line is seized. When no idle ICM line exists, the operation is ignored.
- o COL in conference can be transferred.
- o When the TRN key is pressed while engaged in ICM call, the ICM call is placed on Consultation Hold and an ICM call can be made using the same ICM line.
- o When the TRN key is pressed during ICM Conference, the ICM line is placed on Conference Hold and an idle ICM is seized. When no idle ICM line exists, BT is accessed and the operation terminates.

Operation Guide



WATELL.

2.3.T.3.2 SLT

A SLT user may hold and transfer a COL/ICM by flashing the switch hook.

Conditions

- o When flashing is executed at a SLT while engaged in a COL call, ICM call, or ICM conference, DT is accessed and the line is placed on Exclusive Hold, Consultation Hold, or Conference Hold.
- o When flashing is executed at a DTMF SLT while the DTMF Receiver is busy, BT is accessed and the operation terminates.
- o When Consultation Hold is executed, the same ICM line is used. However in other cases an idle ICM line is required, so when no idle ICM line exists the operation terminates.

Operation Guide

(COL/ICM Corversation) ↓↑ + ICM Call Operation + Called Party Answer + □ ↓



ALPHABETICAL INDEX

The alphabetical indices for the Feature and Operation of this section in general are provided here.

Note: A/B: Either package A or B is necessary.

Baink: Standard feature.

Package is necessary depending on the feature.

	Feature	Package	Section		Feature	Package	Section
A	Abbreviated Ringing (Call Abbreviation) Absence Message Account Code Input Adaptable to Adjuncts Add-On Conference All Call with Meet Me All Group Call with Meet Me All Zone Call with Meet Me Attendant Attendant Call Priority Attendant Dedicated ICM Lines	В	C.2 M.3.1 S.1.8 O.3.1 C.11.1 P.1.1 P.1.3 P.1.2 A.1 A.1.1	С	Camp-On (Unscreened Transfer Camp-On Pickup Camp-On Recall Chain Call Clock Adjustment COL Selection Conference Conference Camp-On Conference Hold Consultation Hold Recall		C.8 C.8.3 C.8.4 A.1.7 C.9 C.10 C.11 C.11.6 C.11.3 H.2.3 H.2.4
	Attendant DSS Calling Attendant Intercept Attendant Paging Call with Meet Me Attendant Recall (Automatic Recall) Automatic Adc-On Automatic Caliback Automatic Hoid Automatic COL Release (From COL)		A.1.3 A.1.4 P.1.6 A.1.5 C.11.2 C.3.2 H.2.5 A.2	D	Dial Tone Reorder Direct Call Pickup Direct COL Assignment Disconnect Display Mode Change Do Not Disturb Do-Not-Disturb Forced Release Do-Not-Disturb Override Dua: Attendant Dynamic Programming		F.1.2 D.1 D.2 D.3 D.4 D.5.1 D.5.2 O.6.2 A.1.11 P.7.2
	Automatic ICM Termination Automatic Line Answer Automatic Night Assign Automatic Recall (Attendant Recall) Automatic Trank Station Release		A.3 A.4 N.1.3 A.1.5	E	Electronic Mail (Text Mail) Equal Access Dialing Exclusive Hold Executive Override External Alarm Signal (Loud Ringer) External Station Loud Ringer		M.3.8 E.1 H.2.1 O.6.3 O.3.4 O.3.3
8	Background Music Built-in Speakerphone (Full Hands-free Oceration) Busy Call Forward Busy Call Forward Forced Release Busy Lamp Field Busy Overrice		B.1 H.1 C.4.2 A.1.15 B.2 O.6.1	F	E&M Tie Line Service Establishment of ICM Calling Method Flash (to COL) Flexible Key Assignment Flexible Night Service Floating COL Group Access Follow-Me	A	F.1 F.2 N.1 F.3 F.4
С	Calculator Call Abbreviation Callback Queling Call Forward Call Forward Forced Release Call Monitor Call Park	Α	C.1 C.2 C.3 C.4 A.1.14 C.5 C.6.1	G H	Group Call with Meet Me Hands-Free Answer Back Hands Free Stations Headset Adaptor Holding Hold Recall ICM Calling		P. 1.5 I.1.1.2.1 H.1 O.3.2 H.1 H. 2.7
	Call Park Pick UE Call Pickup Grade Call Release Call Split Call Waiting Calling Mode Change		C.6.2 C.7 A.1.8 C.6.3 O.6.4 i.1.1		ICM Calling ICM Call Conditions ICM Path Termination Incoming COL Call		i.1 i.2 i.3

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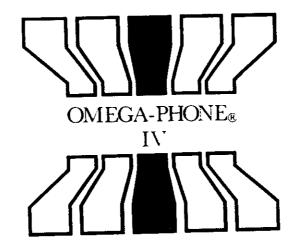
Note: A/B: Either package A or B is necessary. Balnk: Standard feature.

Package is necessary depending on the feature.

	Feature	Package	Section		Feature	Package	Section
L	Last Number Redialing (Saved)		R.1	S	Saved Number Redial		R.1 S.1
M	Master Group Hunt Call Meet-Me Memo of Call Message Message Waiting Microphone Cutoff Multi-level Toll Restriction Multi-line Conference Music-on-Hold	ΔB	M.1 M.2 M.3.2 M. 3 M.3.3 M.4 M.5 C.11.4		Secretarial Busy Lamp Field Secretarial Hot-Line Termination Sender Timeout Serial Call Soft Ringer Station Class-of-Service Station Forced Release Station Lock Out		S.1 S.2 S.3 A.1.6 S.4 S.6 A.1.13 S.7
N	Night Automatic Answering Night Relay Night Service	В	H.2.6 M.3.4 N.1.2 N.1		Switching Night Mode System Alarm Indications System Data Printout System Hold		N.1.1 S.8 S.1.9
0	On-hook Dialing Optimized Call Routing Optional Equipments Outgoing Address Signal Outpulsing Outgoing Restriction	A	Ö.1 O.2 O.3 O.4	T	System Hold System Initialization System Programming Terminal System/Station Speed Dialing Tenant Service		H.2.2 S.9 P.7.1 S.5
	Overflow Transfer Override	:	A.1.10 O.6		Through Dialing Timed Trunk Queuing		T.1 A.1.9 T.2
Р	Paging Call Personal Computer Pickup Restriction Preselection Prime Station	В	P.1 P.7.5 P.2 P.3 P.4		Toll Restriction Tone Calling Transfer (Screened Transfer) Trunk Forced Release Trunk-to-Trunk Conference	A	M.5 I.1.1.1 T.3 A.1.12 C.11.5
	Privacy Private Line Private Line Automatic Answering		P.5 P.6 M.3.1.5	U	Universal Night Assign Universal Night Assign Pick up		N.1.4 N.1.5
	Programming COL Lines Programming From Key Telephone		P.7.3 P.7.4	V	Voice Calling Voice Mail Voice Message Waiting	B B	I.1.1.2 M.3.7 M.3.6
a	Quick Mode Operation		Q.1	Z	Zone Call with Meet Me		P.1.4
R	Reminder Remote Ca Park Retrieve Remote Programming	B B	M.3.5 C.6.2.2 P.7.5				j
	Ring-Back Tane on Hold		H.2.8			}	

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM

INSTRUCTION MANUAL



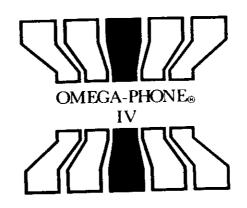
2.4 PROGRAMMING FEATURES

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2.4.3.6	INCD/DECD Key	. 2.4.0
2.4.3.7	COLL Kov	. 2.4.0
2.4.3.8	CLD Kay	. 2.4-0
2.4.3.9	DEL Voy	. 2.4.0
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2.4.3.11	DCM/TC1 Key	2.4-5
2.4.4	Select Class of Data	. 2.4-9
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		/

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL



PROGRAMMING FEATURES

Programming Mode 2.4.1

URTAU

System data can be entered during system operation if the following conditions are satisfied:

- C An Attendant is included in the system.
- PROV-M1 is set.

When the above conditions are satisfied, depress the keys on the Attendant Console as follows while the Attendant KT is off-hook:

System data can then be entered.

This status is called programming mode, and the status before this operation is called ordinary mode. To change from programming mode to ordinary mode, enter the following:

Only one Attendant Console can be in programming mode even if there are two Attendant Consoles in a system.

An Attendant cannot go into the Programming Mode when the system is performing Remote Programming. An Attendant Console in programming mode is called a System Programming Terminal.

In programming mode, the keys on the System Programming Terminal are classified into two types. The Keys shown in Figure 2.4.1.1 are called Input Data Keys, and the Keys shown in Figure 2.4.1.2 are called Function keys.

Note: Ten-Key: Because there are no ten-keys on the Attendant Console, a part of the Input Data keys are assigned to numbers 0 to 9 and characters \star and \neq and are referred to as Ten-Key.

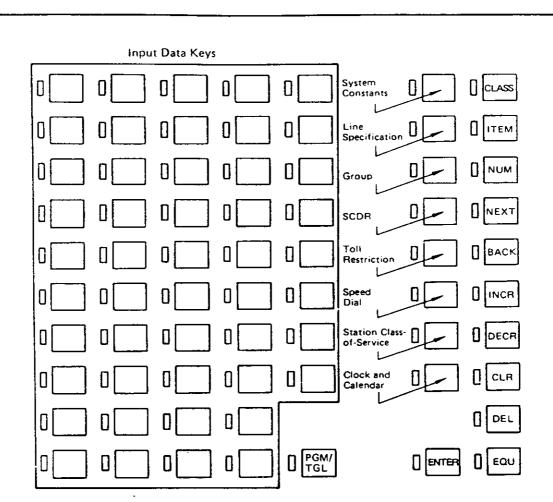


Figure 2.4.1.1 Input Data Keys

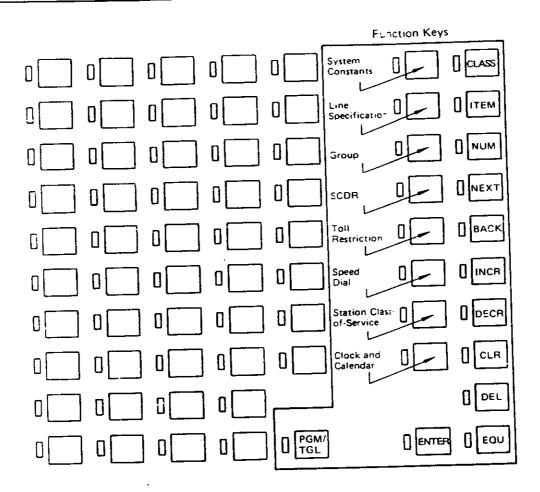


Figure 2.4.1.2 Function Keys

2.4.2 Status of Programming Mode

The programming mode consists of four states:

- Class State
- □ Item State
- Number State
- C Data State

Figure 2.4.2.1 shows the relationship between each state of the programming mode and the keys used in that state.

Each state is described below.

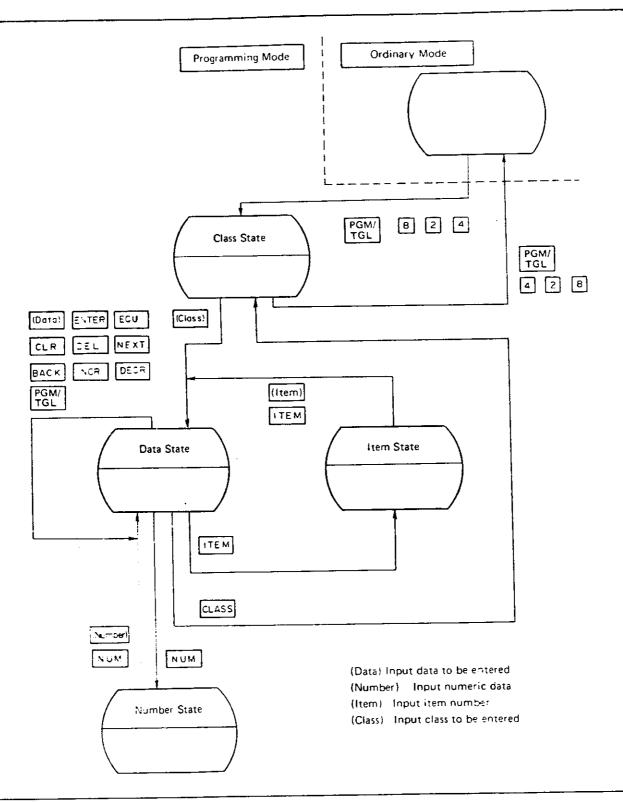


Figure 2.4.2.1 Programming Mode

2.4.2.1 Class State

The following classes can be entered in Class State:

- System Constants
- Line Specification
- Group
- SCDR
- Toll Restriction
- Speed Dial
- Station Class-of-Service
- Clock and Calendar

When class is entered, the status changes to Data State. The PGM/TGL key can be used to switch to ordinary mode.

2.4.2.2 Item State

In Item State, input data keys are used to enter an item number. When an item number is entered, the status changes to Data State. If function key ITEM is depressed before ending item number input, the item number immediately before changing to Item State is automatically entered and the status changes to Data State.

2.4.2.3 Number State

In Number State, a specified number can be input using the Input Data Keys and PGM/TGL key. The normal-side and reverse-side mode of the Input Data keys by depressing the PGM/TRL key. When a number is entered, the status changes to Data State. If function key NUM is depressed before ending number input, the number immediately before changing to Number State is automatically entered and the status changes to Data State. If the number consists of two number however, and the NUM key is depressed after entering the first number, the number before changing to Number State is automatically entered as the second number, the manually keyed number is entered as the first number, and the status changes to Data State. The following is an example.

Toll Exception Table Number: 03

Exception Number: 04

Change to Number State and enter 0 and 4.
Figure 2.4.2.3.1
Change to Number State and enter 0 and 4.

Figure 2.4.2.3.2

When the NUN'key is depressed in this status to change to Data State, the numbers become:

Toll Exception Table Number: 04

Exception Number: 04

Toll < Exception

Only the first number changes. The second number remains unchanged.

Data State 24.2.4

In Data State, function keys (NEXT), BACK, INCR, and DECR) can be used to display the data after changing the number or item on the Programming Terminal. Also, the data to be input can be entered using the input data keys and function keys (CLR), DEL, and EQU), and the data entered can be registered (with the ENTER key).

Function keys (CLASS ITEM, and NUM) can be used to change from Data State to other states.

The input data keys in Data State show the current setting by turning on key lamps. The lamp on the Function key or Input Data Key lights to indicate the key that is avairable. However, for item in which the Input Data Key is assigned to EXT, CO, the key lamp is used to indicate the setting. The lamp blinks if the data is set and steadily lights if the data is not set.

When the data to be set is an item to specify an extension, setting on extensions 68 to 83 can be made by setting the Input Data Keys to the reverse-side mode by pressing the PGM/TGL key.

The Programming Terminal Display displays the content of specified data. For items in which data is entered with ten-key, the value of the ten-key is displayed as it is entered.

Function Keys of Programming Mode 2.4.3

The use of function keys in Programming Mode is described below.

2.4.3.1 Class Keys

When one of the eight class keys is depressed, the data for item 1 of that class is displayed and the status changes to Data State.

2.4.3.2 CLASS Key

Status changes to Class State.

2.4.3.3 ITEM Key

Status changes to Item State, Status returns to Data State if depressed in Item State.

2.4.3.4 NUM Key

Status changes to Number State. Status returns to Data State if pressed in Number State.

2.4.3.5 NEXT/BACK Key

The NEXT and BACK keys can be used to change items within a class. When NEXT is depressed the data for the next item is displayed. When DECR is depressed, the data for the previous item is displayed. For items that have numbers, if there is a same number in the item after depressing NEXT or BACK, the number of the previous item is retained and does not change.

If the same number does not exist, however, the first number in the item is entered. This is true also when switching from an item without numbers to an item with numbers.

2.4.3.6 INCR/DECR Key

The INCR and DECR keys can be used to change Number within item. When INCR is depressed, the data display changes to the next number.

If DECR is entered, the previous number is displayed.

2.4.3.7 EQU Key

The data for the previous number is entered.

2.4.3.8 CLR Key

All the setting data on the Display and Input Data Keys are made invalid. All the display and lamp indications are cleared.

2.4.3.9 DEL Key

Invalidates the last digit of the data and clears the display of that digit.

2.4.3.10 ENTER Key

Registers input data. Data may be registered only when the input data is within the range of data for the item. If there is an error, the status before data entry is restored.

2.4.3.11 PGM/TGL Key

The PGM/TGL key functions as a PGM key in the class state. When the password 4 2 8 is entered after depressing the PGM/TGL key in the class state, ordinary mode appears. If the PGM key is depressed during password entry, the status changes to Class State.

The PGM/TGM key functions as a TGL key in the data state and number state. When the PGM/TGM key is depressed in these states, normal- and reverse-side mode of the Input Data Keys can be switched over.

When the input data is an item to specify an extension, setting on extensions 68 to 83 can be made by setting the Input Data Keys to the reverse-side mode by depressing the PGM/TGL key.

When the Input Data Keys are in the reverse-side mode, the PGM/TGL lamp blinks in the I-USE pattern. In the case of the normal-side mode, it indicates Busy indication.

2.4.4 Select Class of Data

Any class can be specified. Class is specified by depressing one of the following class set keys in Class State:

System constants

Line specification

Group

SCDR

Toll restriction

Speed dial

Station class-of-service

Clock and calendar

Figure 2.4.4.1 Class Keys

Status changes to data State when one of the above keys is depressed.

2.4.5 Select Item of Data

Any item within the current class range can be specified. An item is specified with the Ten-Key assigned to the input data keys. Ten-Key lamps light to indicate the keys that can be depressed. The status returns to Data State after the depression.

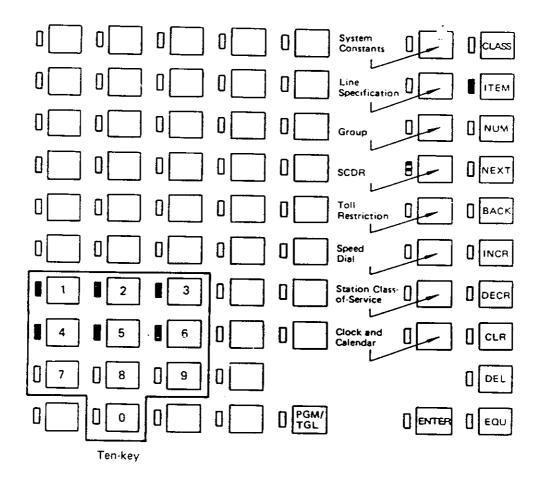


Figure 2.4.5.1 Data Keys for Item State

Select Number of Data 2.4.6

Any number within the current range of numbers can be specified. A number is specified according to the input method for item. Input is performed by pressing the ten keys assigned to input data keys or by depressing keys representing EXT, CO, or ICM.

In either case, key lamps light to indicate the keys that can be depressed. The status changes to Data State after the depression.

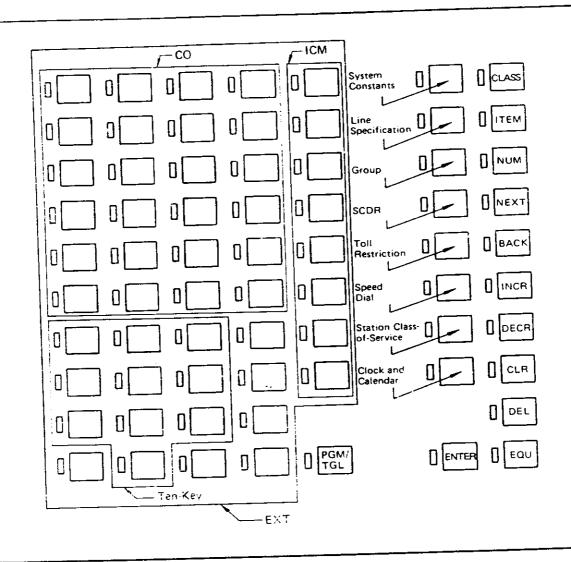


Figure 2.4.6.1.a Data Keys for Number State (Normal-side mode)

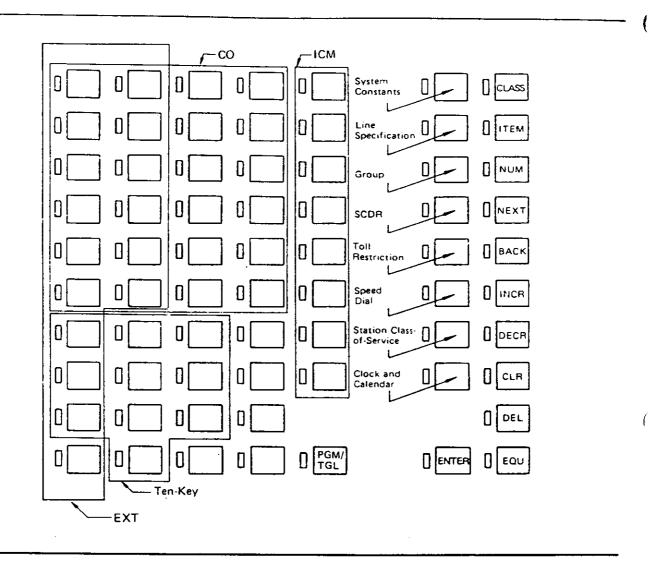


Figure 2.4.6.1.b Data State for Number State (Reverse-side mode)

2.4.7 Data Registration

The content of the currently registered data can be changed in Data State. Input data keys are used to enter new data. The following steps show how data is displayed.

- a. When the key lamps of the data input keys are blinking (Set) or lit (Not Set), a blinking key changes to lit (Not Set) and a lit key changes to blinking (Set) when depressed.
- b. To display data, Ten-keys assigned to input data keys are used. The usable Ten-key is indicated by lit key lamps.

When a Ten-key is pressed, the current data is cleared and the new data is displayed. Use the following function keys to enter data:

- a. Use the EQU key to enter the same data as the previous number for items with numbers. The key lamp is lit if the key is usable.
- b. Use the CLR key to enter default data.
- c. Use the DEL key to delete the last digit of the displayed data. The key lamp is lit if the key is usable.

Data cannot be registered just by entering it. Data is registered, provided it is in the correct range when the ENTER key is depressed after the data is entered.

When ENTER is depressed, the prompt "Accepted" is announced and the key lamp for the ENTER key blinks for about 0.5 second if the input is correct. If the data is incorrect, the prompt "Illegal Data" is announced and the display returns to the previous status.

2.4.8 Prompt

In programming mode, Prompt is available for the information listed below. The voice comes from the Attendant KT speaker.

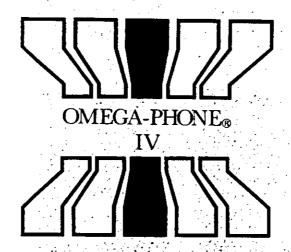
- O When PGM/TGL key is pressed in Class State:
 - "Enter Password"
- O When changing from ordinary mode to programming mode or when the CLASS key is depressed and the status changes to Class State:
 - "Enter Class"
- When the ITEM key is depressed and the status changes to Item State:
 - "Enter Class"
- O When the NUM key is depressed and the status changes to Number State:
 - "Enter Number"
- When the status changes to Data State:
 - "Enter Data"
- When the ENTER key is depressed and the input data is registered in the system:
 - "Accepted"
- When the ENTER key is depressed and the input data is incorrect:
 - "Illegal Data"
- O When the ENTER key is depressed without entering data:
 - "Enter Data"

Prompt is available for function keys CLASS, ITEM NUM ENTER, and PGM/TGL For keys without prompt such as the NEXT, BACK, INCR, DECR, CLR, DEL, and EQU keys, a buzzer sounds to indicate whether the input is correct. This buzzer is called a Confirmation Tone for Attendant. A buzzer sounds when a key is depressed and the function of the key is executed.

2.4.9 Display of Data

For data format displayed on Display, refer to Table 2.2.2.3.6, System Programming Terminal Display.

ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL



PART 4 PROGRAMMING

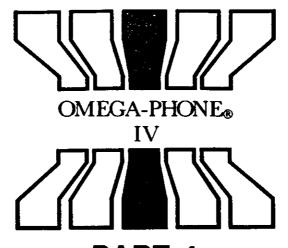
ONTENTS PLANNING

- 4.1 SYSTEM PLANNING
- 4.2 GENERAL DESCRIPTION OF PROGRAMMING
 - PROGRAMMING OPERATION



EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM

INSTRUCTION MANUAL



PART 4 Section 4.1

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
4.1-3	Table 4.1.2.2 (Default column) 8 from top	No Function	0: Not Assigned	М
	Table 4.1.2.2 (Default column) 2 from bottom	All EXTs Assigned	0: Not Assigned	М
4.1-5 Table 4.1.2.5 Exception (Number column) 5 from top Table 4.1.2.5 Tenant x T (Number column) A/B	Exception Table No. x Table No.	Diał Table No. x Table No.	m	
	(Number column)	Tenant x Time Zone A/B 0 to 2 x Route Table No. 1 to 8	Tenant x Route Table A/B 1 to 8 No. x Time Zone 0 to 2	М
	Table 4.1.2.5 (Data column) 3 from top	Exception Table	<u>Dial</u> Table	m
:	Table 4.1.2.5 (Boundary column) 3 from top	Allow/Deny + Exception Table *6	Deny/Allow + Dial Table *6	m
	Table 4.1.2.5 (Boundary column) 5 from top	Dial + Exception Table No. *2	Dial + <u>Dial</u> Table No. *2	m
4.1-7	Table 4.1.2.7 (Data colum) 7 from top	Mail Class Attribution	Message Attribution	m

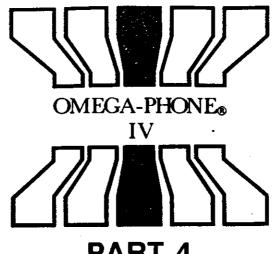
Errata 1 PART 4 Section 4.1

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
4.1-7	Table 4.1.2.7 (Default column) 7 from top	No Attribution	Attribution	М
4.1-8	Table 4.1.2.8 (Boundary column) 6 from top	0 to 6 (day of week)	1 to 7 (day of week)	m

Errata (2)

EX-1232/2464
ELECTRONIC KEY TELEPHONE SYSTEM
INSTRUCTION MANUAL



PART 4 Section 4.2

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
4.2- 10	3 from bottom	Mail Class Attribution (Item 7)	Message Attribution (Item 7)	m
4.2· 25	Figure 4.2.2.5.1.A	COS FLT 1	COS FLT	m
	Figure 4.2.2.5.1.B	TRN ICM FLT1 SPKR MSG FLT2 PAGE FEAT PARK	TRN ICM FLT SPKR MSG FLT PAGE FEAT PARK	m

Errata 2 PART 4 Section 4.2

M: Major correction m: Minor correction

Page: 4.2-15

Line: Figure 4.2.2.2.3

Remarks: m

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			, , , , , , , , , , , , , , , , , , ,
1. SPD <tnt< th=""><th>_</th><th>> OP</th><th>0P52019558500</th></tnt<>	_	> OP	0P52019558500
4. <u>4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4</u>			

1. SPD<TNT - > 0P52019558500

Page: 4.2-15

Line: Figure 4.2.2.2.4

Remarks: m

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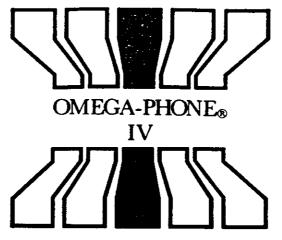
Correction

T T T T T T T T T T T T T T T T T T T			 	* *	1 3 3	_
1. SPD <tnt< th=""><th>_</th><th>></th><th>0 P 5 2</th><th>0 1</th><th>95</th><th>585</th></tnt<>	_	>	0 P 5 2	0 1	95	585
	1					

1. SPD<TNT - > 0 P520195585

Errata (3)

EX-1232/2464
ELECTRONIC KEY TELEPHONE SYSTEM
INSTRUCTION MANUAL



PART 4 Section 4.3

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
A cover	(Left column) 11 from top	Exception 1 able (Item 3)	Dial Table 1 able (Item 3)	m
	(Right column) 4 from top	Mail Class Attribution	Message Attribution	m
4.3- 101	6 from top	5: WATS (MF) inward	5: WATS inward	m
4.3- 150	Figure 4.3.4.11.1.a	B EXT	EXT 50 50 50 50	М
:		2 1 3 1 4 1 5 1 8 61	■ 21 ■ 21 ■ 41 ■ 51 ■ 61	
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: ! :		23 43 53 65	1 23 1 23 1 23 1 23	
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		8 77 8 47 8 57 8 67	\$\begin{array}{c c c c c c c c c c c c c c c c c c c	
!		B 28 B 29 B 48 B 58		!
		29 8 30 8 40 8 50 8 PGM/	1 29 1 39 1 49 1 1 FGM/	;

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
4.3· 151	Figure 4.3.4.11.1,b	\$\begin{array}{cccccccccccccccccccccccccccccccccccc	EXT 79 0 0 0 0	М
4.3- 194	6 from top	Exception Table	<u>Dial</u> Table	m
4.3- 204	(Left column) Flowchart	(Restriction mode) 0: Allow 1: Deny	(Restriction mode) 1: Allow 0: Deny Enter data with ten-key	m
	(Left column) Flowchart	(Exception table O0 to 50 x 6 O0: Not used Enter deta with ten-key	Diel table O to 50 x 6 OD: Net used Enter data with ten-key	m
4.3-	1 from top	Exception Table (Item 3)	Dial Table (Item 3)	m
209	2 from top	Setting content (dial and continuing table number) of exception table	Setting content (dial and continuing table number) of dial table	m
	(Right column) Flowchart	-{Exception 1- 1> Teti -00-00		m
4.3- 252	(Right column) Flowchart	CTNT A-CONO-ROUTS ROUSE THTS		m
4.3- 253	(Right column) Flowchart			m

Errata ③ PART 4 Section 4.3

M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
4.3- 253	(Right column) Flowchart	(When number is Tenant A.)	(When number is Tenant A.)	m
	-	(When number is Time Zone 0.)	(When number is Routs Table No. 1)	m
		(When number is Route Table No. 1.)	(When number is Time Zone 0)	П
4.3- 254	(Right column) Flowchart		-{ <tnt -="" a-rout1="" zon0=""> Reute (Input data is displayed at position of asterisk.)</tnt>	m
4.3- 352	10 from top	Mail Class Attribution	Message Attribution	æ
4.3-	1 from top	Mail Class Attribution (Item 7)	Message Attribution (Item 7)	m
377	(Right column) Flowchart	- (7. Mail Class Attribution (Data is displayed on EXT key lamp.)	(Data is displayed on EXT key lamp.)	m
4.3- 483	(Left column) Flowchart 1 to 2 from bottom	Day of week 0 to 6	Day of week <u>1</u> to <u>7</u>	m

M: Major correction m: Minor correction

Page: 4.3-33

Line: Figure 4.3.3.4.1 (Display)

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ŧ		٠.													1.		4.	_				_	-			_	-	•		

RCL Timeout (seconds) 20

Page: 4.3-212

Line: Figure 4.3.7.3.1 (Display)

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1					
<exception< th=""><th>1</th><th>1 ></th><th>Toll</th><th>123</th><th>-00-00</th></exception<>	1	1 >	Toll	123	-00-00
la a a a a a a a a a a a a a a a a a a					

<Dial TBL 1- 1> Tol! 123 -00-00

Page: 4.3-213

Line: Figure 4.3.7.3.2 (Display)

Remarks: m

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< Exception	n -	> To 1	l 1	_	_

<Dia: TBL - > Tol! - -

Page: 4.3-214

Line: Figure 4.3.7.3.3 (Display)

Remarks: m

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		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
<exception< th=""><th>1 -</th><th>> Toll</th></exception<>	1 -	> Toll
1		

<Dial TBL 1- > Tol1 - -

Eigure 4.3.7,10.4

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Figure 4.3.7.10,4

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Figure 4,3.7.10.5

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PGM/ TGL

Figure 4,3.7.10.5

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PGM/ TGL

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M: Major correction m: Minor correction

Page: 4.3-379

Line: Figure 4.3.9.7.1.a

Remarks: M

Original

Correction

Display

Display

7. Mail Class Attribution

7. Message Attribution

Key Lamp

| 22 | 122 | 142 | 152 | 162 | Group | 1 | MUM | 123 | 133 | 163 | SCOM | 1 | MEXT

I M I M I M I M I MACH

20 \$ 34 \$ 56 \$ 00 Station Class \$ Dock

[29 [39 [44] SB] FGM

Beven D con

Note: Data is indicated on the very lamp assigned to the EXT key.

Key lamp indications are appricable to the normal-side mode of the input data keys.

Key Lamp

22 H 28 H 48 H 54

D B TO B TOL

Benze () Equ

[] DEL

Note: Date it indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the incit date keys.

Figure 4.3.9.7.1.a

Figure 4.3.9.7.1.a

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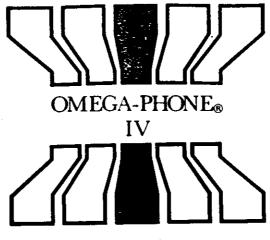
Correction

Daylight Save Time 0 Daylight Saving 0

Errata (4)

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM

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PART 2

Section 2.1

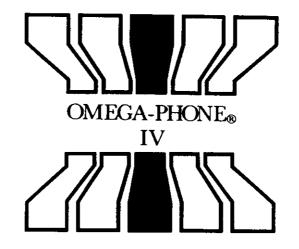
M: Major correction m: Minor correction

Page	Line	Original	Correction	Re- marks
2.1-5	Table 2.1.2.2 (Meaning column) 10 from top	DSS Programming Overlay-Sheet	DSS Programming Overlay-Sheet-M1	m

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EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM

INSTRUCTION MANUAL



4.1 SYSTEM PLANNING

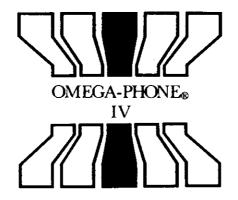
CONTENTS

4.1.1	System Data	1
4.1.2	Default Values of System Data	י 2

±			

EX-1232/2464

ELECTRONIC KEY TELEPHONE SYSTEM
INSTRUCTION MANUAL



4.1 SYSTEM PLANNING

4.1.1 System Data

In this system, system data are data which define the system functions.

IWATSU

System data are classified into eight classes:

- System Constants
- Line Specification
- Group
- SCDR
- O Toll Restriction
- Speed Dial
- Station Class-of-Service
- Clock and Calendar

Default data are set automatically for system data when the system is installed. However, data is saved for reactivation after system halt (power off or resetting of CCPU-ME switch) in backup mode. System data is entered from the System Programming Terminal in the Programming Mode. Only one Attendant can be switched even if there are two Attendants to a system.

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Default Values of System Data 4.1.2

The following tables show the default data for each setting.

Table 4.1.2.1 System Constants

ite	m Number	Data	Boundary	Default
1		Hold Timeout	1 to 255 Seconds 0 : No Function	30 Seconds
2		Sender Timeout	10 to 255 Seconds	20 Seconds
3		Page Timeout	1 to 255 Seconds 0: No Function	10 Seconds
4		Hold Recall Timeout	1 to 255 Seconds 0: No Function	20 Seconds
5		Camp On Timeout	1 to 255 Seconds 0 : No Function	30 Seconds
6		Callback Timeout	10 to 255 Seconds	20 Seconds
7		Automatic Answer Time	1 to 255 Seconds 0 : No Function	12 Seconds
8		Attendant Intercept (No Answer)	10 to 255 Seconds	20 Seconds
9		Master Group Hunt Timeout	10 to 255 Seconds	20 Seconds
0	1 to 12	PBX outgoing Specification Code	Dial: 4 digits or less	No Function
1	ATT 1 to 2	Overflow Transfer Minimum	0 : No Function 3 to 9 Lines	0 : No Function
2	ATT 1 to 2	Overflow Transfer Extension	Specify 1 EXT	No Function
3	Tenant A/B	ICM Call Mode	0 : Voice 1 : Tone	0 : Voice
	Tenant A/B	External Paging Speakers	0: No Zone Speaker 1: 1 Zone Speaker 2: 2 Zone Speakers 3: 3 Zone Speakers	0 : No Zone Speaker
		System Prefix	0 : Not Assigned 1 : Assigned	0 : Not Assigned
_ -		Automatic Pause Length	1 to 10 Seconds	5 Seconds
1		Timed Trunk Queuing Interval	1 to 20 Minutes	10 Minutes
	ATT 1 to 2X Key 1 to 96	Attendant Key Assignment	Refer to 4.2.2.5	Refer to 4.2.2.5
	ATT 1 to 2	Attendant EXT Assignment	Specify 1 EXT	ATT 1 : EXT 20 ATT 2 : EXT 21

l tem	Number	Data	Boundary	Default
1	CO 1 to 24 ICM 1 to 8	Line Class	0: DDD (MF) 1: FX (MF) 2: PBX (MF) 3: E&M (MF) 4: WATS (MF) outward 5: WATS inward 8: DDD (DP) 9: FX (DP) 10: PBX (DP) 11: E&M (SF) 12: WATS (DP) outward 16: ICM (Ordinary) 17: ICM (ATT Dedicated) 18: ICM (Hot Line)	CO 0: DDD (MF) ICM 16: ICM (Ordinary)
2	CO 1 to 24 ICM 1 to 8	Tenant Group	0 : Tenant A 1 : Tenant B 2 : Tenant A & B (Only ICM)	0 : Tenant A
3	CO 1 to 24	Universal Night Assignment	0 : Not Assigned 1 : Assigned	1 : Assigned
4	90 1 to 24	Automatic Night Assignment	Each EXT	0 : Not Assigned
5	CO 1 to 24	Outgoing Level	0 to 4 level	0 Level
6	CO 1 to 24	Tall-Restriction Group	0 : No Toll Restriction 1 to 4 group	0 : No Toll Restriction
7	CO 1 to 24	Flash Signal Interval	1 to 20 * 100 ms	700 ms
8	CO 1 to 24	Prefix Dial	0 : Not Assigned 1 : Assigned	1 : Assigned
9	CO 1 to 24	Disconnect Signal	0 : No Reception 1 : With Disconnect Signal	1 : With Disconnect
10	CO 1 to 24	COL Attendant Intercept	0 : Not Assigned 1 : Assigned	0 : Not Assigned
11	CO 1 to 24	Individual Incoming Extension	Each EXT	0 : Not Assigned
12	CO 1 to 24	CO Outgoing Group	0 : Not Assigned 1 to 7 group	Co Group 1

Table 4.1.2.3 Group Data

Item	Number	Data	Boundary	Default
1	Master Group X Priority 1 to 4 1 to 64	ICM Master Hunt Group	One EXT with priority	No Function
2	Call Group 1 to 4	ICM Group Call	Each EXT	All EXTs Assigned
3	Pickup Group 1 to 4	Pickup Group	Each EXT	All EXTs Assigned



Table 4.1.2.4 SCDR

Item	Number	Data	Boundary	Default
1		Print Out CO	Specify CO to be output	All COs Output
2		Print Out Extensions	Specify EXT to be output	All EXTs Outpu
3		Print Out Minimum Time	0 : No restrictions 1 to 30	0 : No restriction:
4		Print Out Incoming	0 : Output 1 : No Output	0 : Output
5		Print Out Calls with Account Code	O: No restrictions 1: Outgoing calls with account code input and all incoming calls 2: Incoming calls with account code input and all outgoing calls 3: Only calls with account code	0 : No restriction :
6		Print Out Toll Calls	0 : Output 1 : Toll calls only (outgoing calls)	0 : Output

Item	Number	Data	Boundary	Default
1	Toll Restriction GRP X EXT Toll Class 1 to 8 1 to 4	Toll Plan NO	Toll Plan NO 0 to 15	0 : No Function
2	Toll Plan No. X Condition 1 to 15 1 to 6	Toll Plan Table	Deny/Allow + Dial Table *6 0/1 0 to 50	0 : Deny (Mode) 00 * 6 : No Function
3	Dial Table NO X Table NO 1 to 50 1 to 10	Dial Table	Dial + Dial Table NO * 2 4 Digits 1 to 50	0 : No Function
4	Tenant X Area Code A/B	E&M Area Code Table	Office Group NO 0 to 4	0 : No Function
5	Tenant X Office GRP NO X Office Code A/B 1 to 4	E&M Office Group Table	Route Table NO 0 to 8	0 : No Function
6	Tenant X Area Code A/B	Area Code Table	Route Table NO 0 to 8	0 : No Function
7	Tenant X Office Code A/B	Office Code Table	Route Table NO 0 to 8	0 : No Function
8	Tenant X Office Group NO A/B 1 to 4	Override Office Code	Override Office Code 3 Digits (Office Code)	No Function
9	Condition X Hour 1 to 4 00 to 23	Time Schedule	0 : Time Zone A 1 : Time Zone B 2 : Time Zone C	A: 8:00 to 16:59 B: 17:00 to 22:59 C: 23:00 to 7:59
10	Tenant X Rout Table No X Time Zone A/8 1 to 8 0 to 2	Route Table	CO Outgoing Group * 4 0 to 7	0, 0, 0, 0 No Function
11	Tenant X CO Outgoing Group A/B 1 to 7	Delete Index Table	Delete Data Table NO 0 to 4	0 : No Function
12	Tenant X Delete Data Table NO A/B 1 to 4	Delete Data Table	Area Code 3 Digits	No Function
13	Tenant X CO Outgoing Group A/B 1 to 7	Additional Index Table	ADD. Data Area/Office Table NO 0 to 5	0 : No Function
14	Additional Data Table NO X Area Code 1 to 5	Additional Data Area Table	Prefix + Additional Table NO 0/1 1 to 10	0 : No Prefix 0 : No Function
15	Additional Data Table NO x Office Code 1 to 5	Additional Data Office Table	Prefix + Additional Table NO 0/1 1 to 10	0 : No Prefix 0 : No Function
16	Additional Table NO 1 to 10	Additional Table	Additional Flag + Dial 0/1 18 Digits or less	0 : No Function 0 : No Function
17	Tenant X Specification NO A/B 1 to 3	Specific Code Table	CO Outgoing Group 1 to 7	0 : No Function
18	Tenant X Table NO A/8 1 to 10	Equal Access Code Table	Dial 16 Digits or less	0 : No Function
19	Tenant X Table NO A/B 1 to 10	Equal Access Pin Code Table	Dial 8 Digits or less	0 : No Function
20	Tenant x Table NO A/8 1 to 10	Equal Access Pin Code Timming Table	0 : After Equal Access Code 1 : After Subscriber Code	0 : After Equal Access Code
21	Tenant X Table NO A/B 1 to 10	Equal Access Prefix Information	0 : Not Assigned 1 : Assigned	0 : No Necessity
22	CO X Table NO 1 to 24 1 to 10	Equal Access Toll Group	Toll Restriction Group 5 to 8 0: No Function	0 : No Function

Table 4.1.2.6 Speed Dial

Number	Data	Boundary	Default
Tenant X System Speed Dial NO A/B 0 to 89	System Speed Dial	Dial	No Function
Tenant X System Speed Dial NO A/B 0 to 89	System Speed Dial Invisible	0 : No Attributes	0 : No Attributio
EXT X Station Speed Dial NO 1 to 64 1 to 10	Station Speed Dial	Dial Dial	No Function
	Tenant X System Speed Dial NO A/B 0 to 89 Tenant X System Speed Dial NO A/B 0 to 89 EXT X Station Speed Dial NO	Tenant X System Speed Dial NO A/B 0 to 89 System Speed Dial Tenant X System Speed Dial NO A/B 0 to 89 System Speed Dial Invisible EXT X Station Speed Dial NO	Tenant X System Speed Dial NO A/B 0 to 89 Tenant X System Speed Dial NO A/B 0 to 89 System Speed Dial Dial 16 digits or less Tenant X System Speed Dial NO A/B 0 to 89 System Speed Dial Invisible 1: With Attributes EXT X Station Speed Dial NO

Table 4.1.2.7 Station Class-of-Services

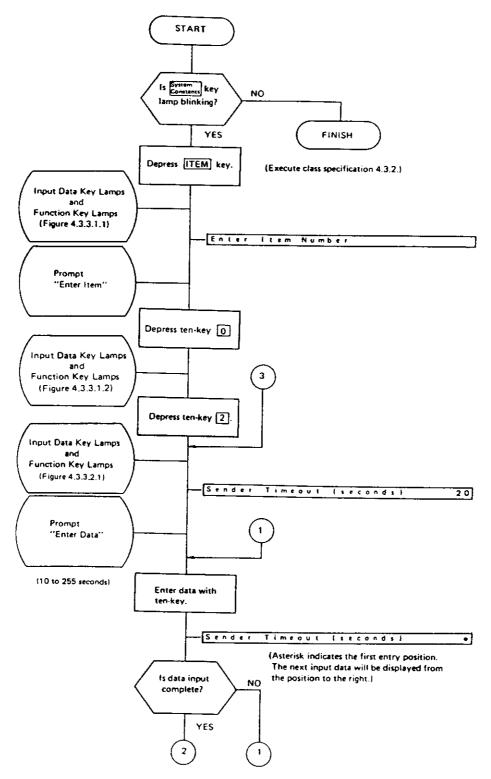
Item	Number	Data	Boundary	Default
1		Tenant Group B	Each EXT	Tenant A
2		Secretary Attribution	Each EXT	No Attribution
3		Protected Attribution	Each EXT	No Attribution
4		Executive Attribution	Each EXT	No Attribution
5		Versaphone Attribution	Each EXT	No Attribution
6		Busy Call Forward	Each EXT	Call Forward
7		Message Attribution	Each EXT	Attribution
8		Quick Mode Deny	Each EXT	Allow
9		Off-Hook Signal Deny	Each EXT	Affow
10		Off-Hook All Call Deny	Each EXT	Allow
11		All Call Deny	Each EXT	Allow
12		Hold Recall Deny	Each EXT	Allow
13		Speed Dial Access Deny	Each EXT	Allow
14		Toll Speed Dial Access Deny	Each EXT	Allow
15	.3	CO Automatic Answer Deny	Each EXT	Allow
16		ICM Automatic Answer Deny	Each EXT	Allow
17		Paging Call Access Deny	Each EXT	Allow
18		Call-Forward Deny	Each EXT	Allow
19		Do Not Disturb Deny	Each EXT	Allow
20		Optimized Call Routing Access Deny	Each EXT	Allow
21		Equal/SCC Access Deny	Each EXT	Allow
22	EXT 20 to 83	Toll Dial Class of Restriction	0 : No Function 1 to 4 class	0 : No Function
23	EXT 20 to 83	CO Outgoing Level	0 to 4 level	0 level
24	EXT 20 to 83	Route Advance Step	0 to 3 step	O step
25	EXT 20 to 83	Pickup Restriction	Each CO	No Function
26	EXT × Key NO 20 to 83 1 to 23	KT Key Assignment	Refer to 4,2,2,5	Refer to 4.2.2.5
 27	EXT 20 to 83	Personal 1D Code	0 to 9 : 3 digits	000

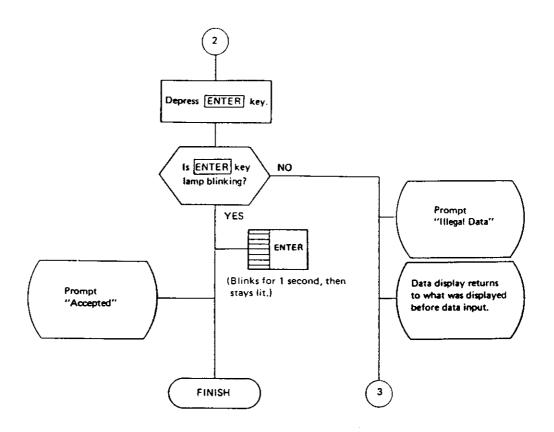
Table 4.1.2.8 Clock and Calendar

Item	Number	Data	Boundary	Default
1		Cłock	00 to 23 (hour) 00 to 59 (minute)	
2		Calendar	00 to 99 (year) 01 to 12 (month) 01 to 31 (day) 1 to 7 (day of week) (sunday) to (saturday)	
3		Daylight Save Time	0 : No 1 : Yes	1 : Yes
4 N	O 1 10 20	Holiday List	01 to 12 (month) 01 to 31 (day)	0 : No Function

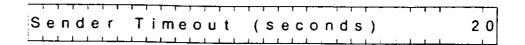
4.3.3.2 Sender Timeout (Item 2)

Feature: Setting Sender Timeout time.





Display



Key Lamp

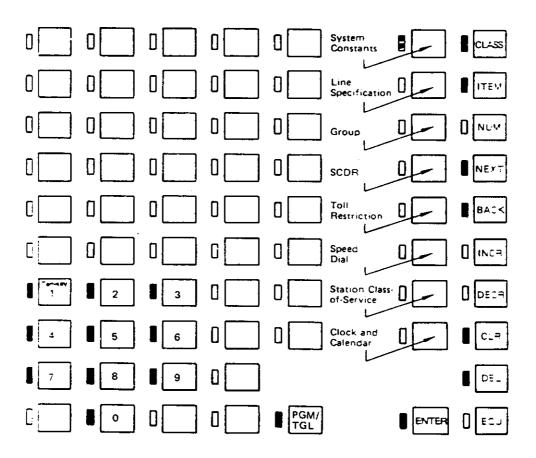
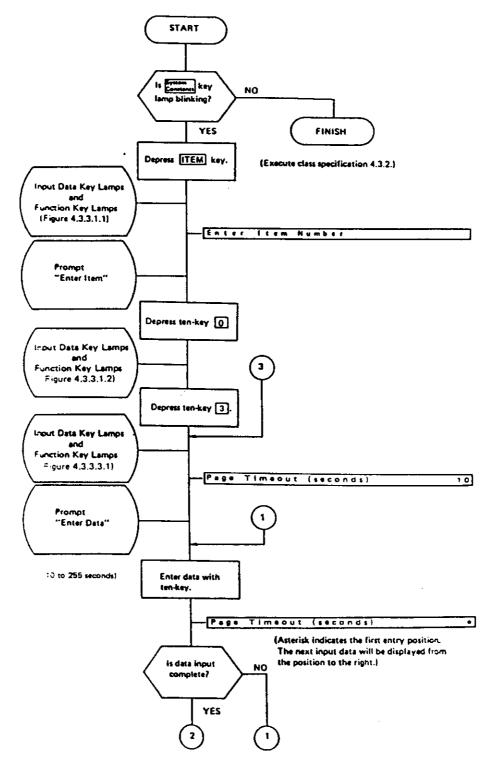
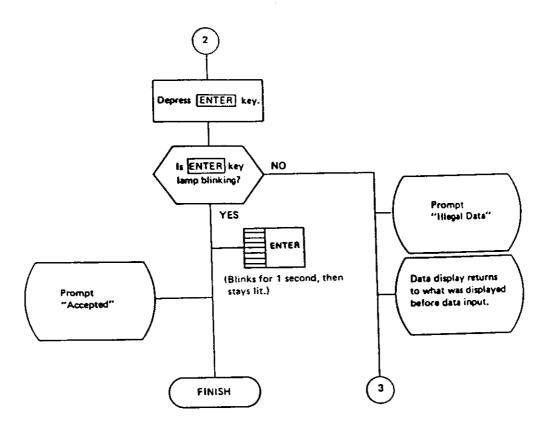


Figure 4.3.3.2.1

4.3.3.3 Page Timeout (Item 3)

Feature: Setting Page Timeout time





Display



Key Lamp

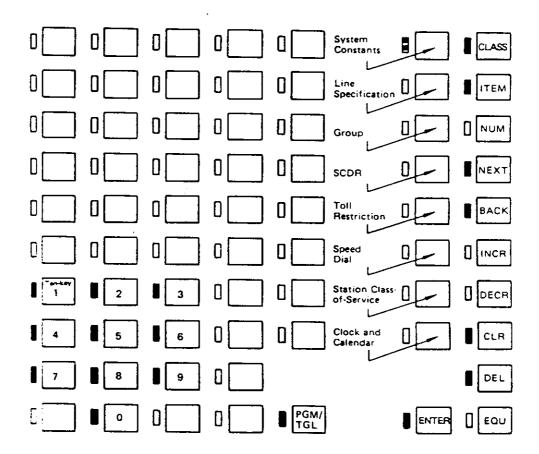
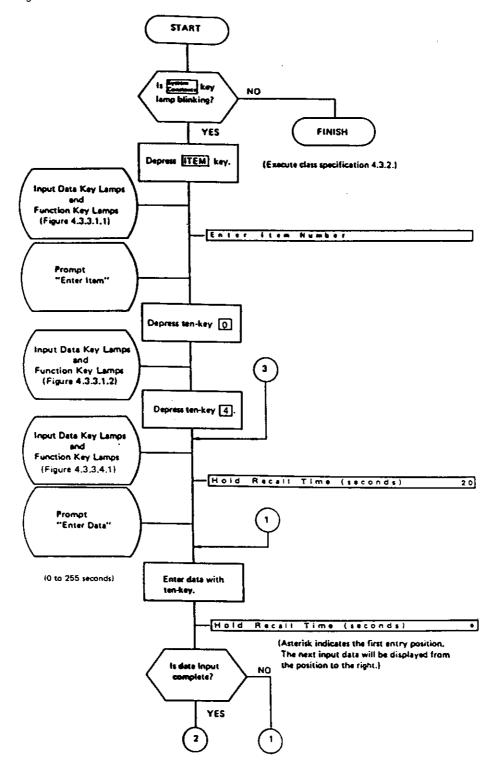
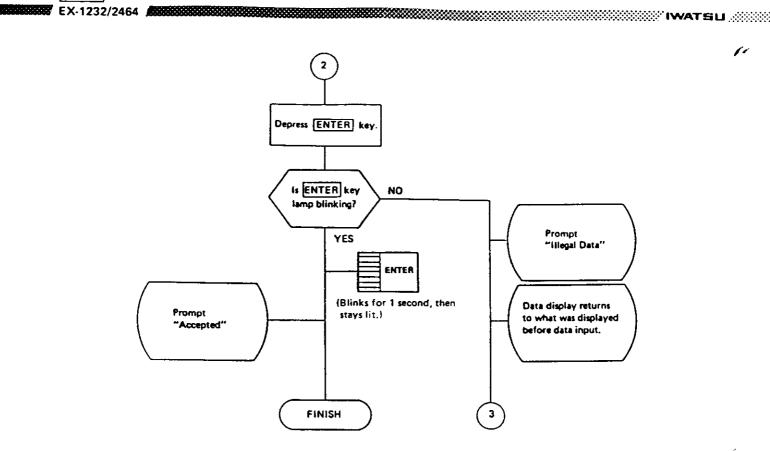


Figure 4.3.3.3.1

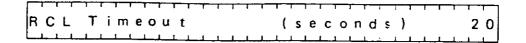
Feature: Setting Hold Recall Timeout time



11



Display



Key Lamp

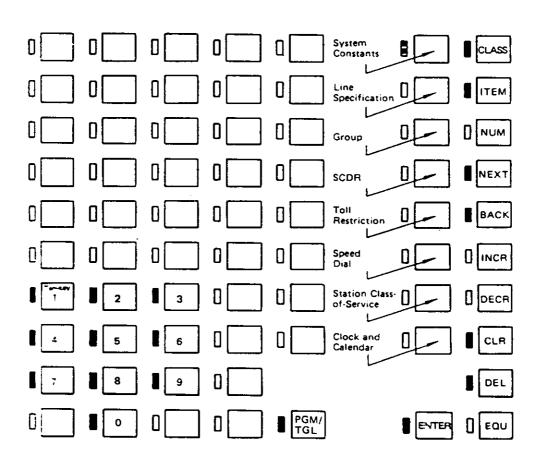
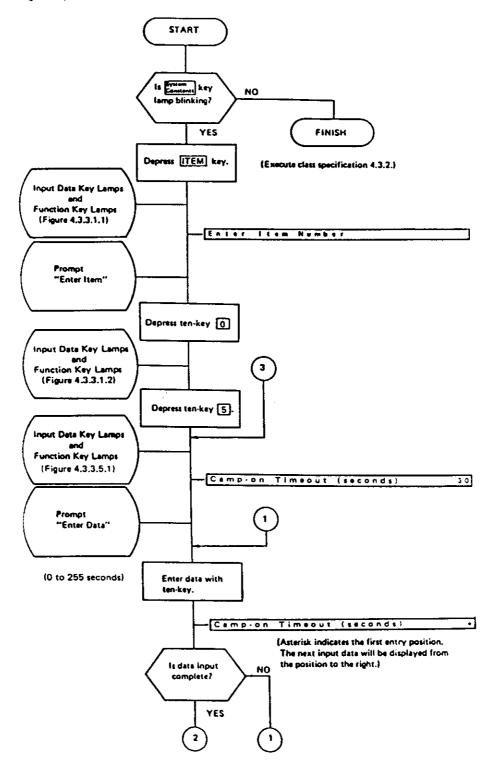


Figure 4.3.3.4.1

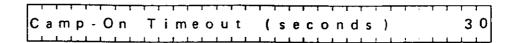
4.3.3.5 Camp on Timeout (Item 5)

Feature: Setting camp on timeout time



FINISH

Display



Key Lamp

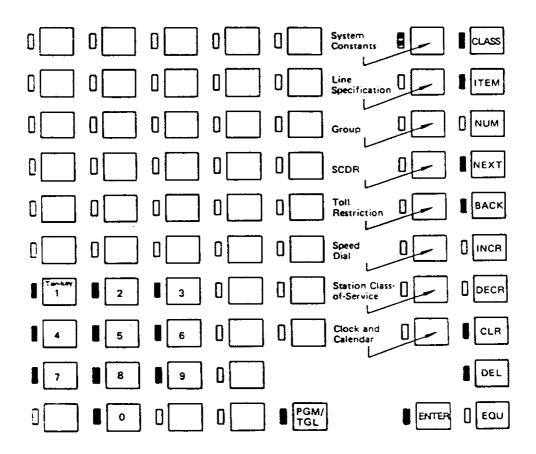
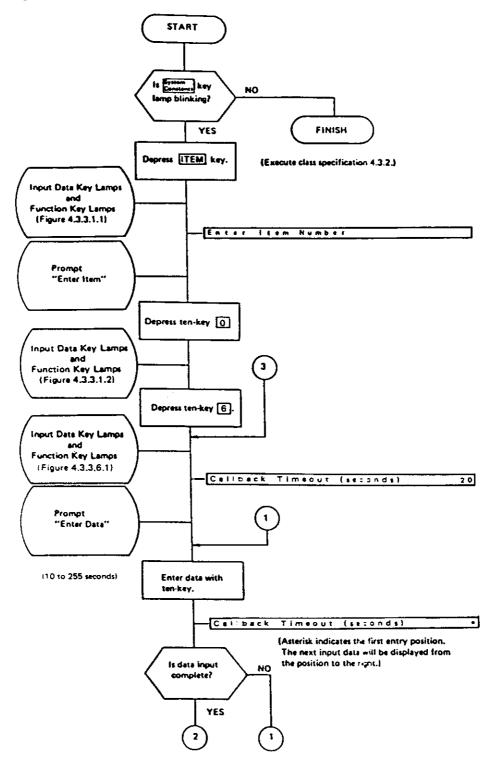


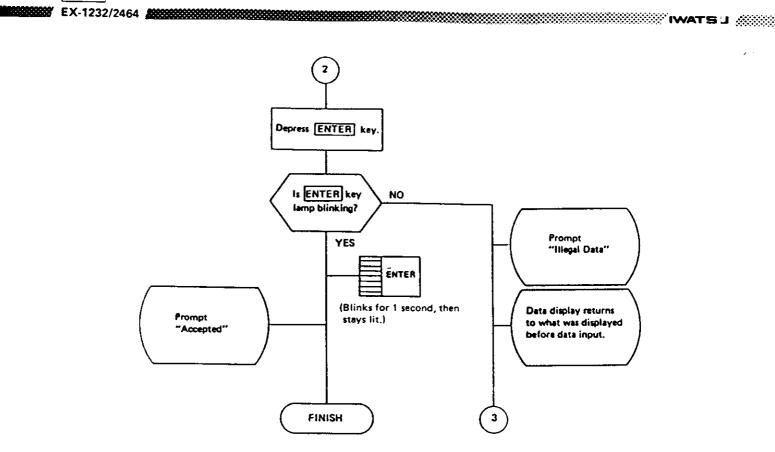
Figure 4.3.3.5.1

:

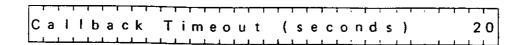
4.3.3.6 Callback Timeout (Item 6)

Feature: Setting Callback Timeout time

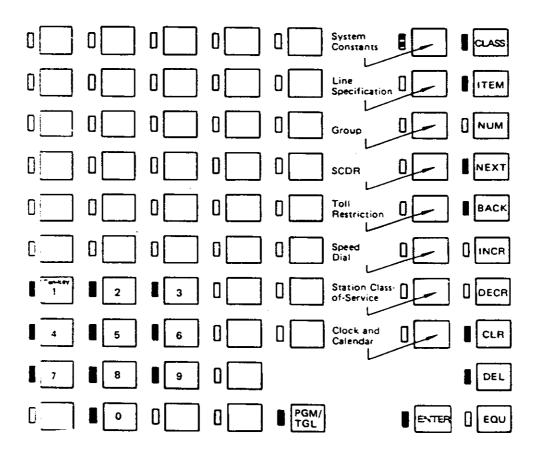




Display



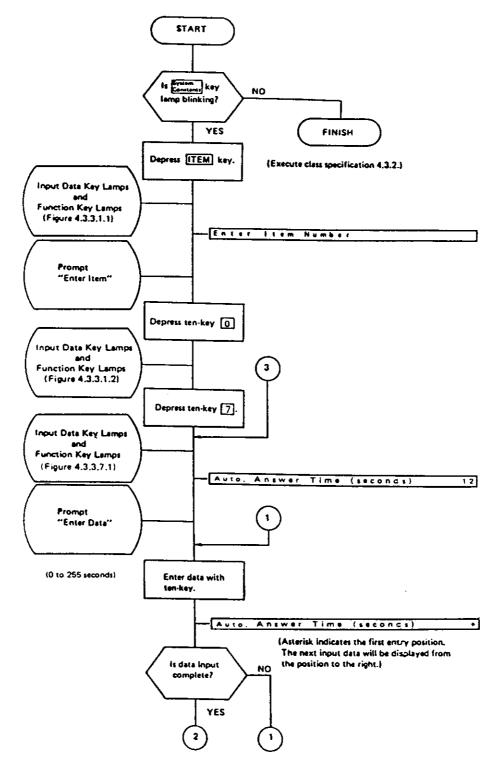
Key Lamp

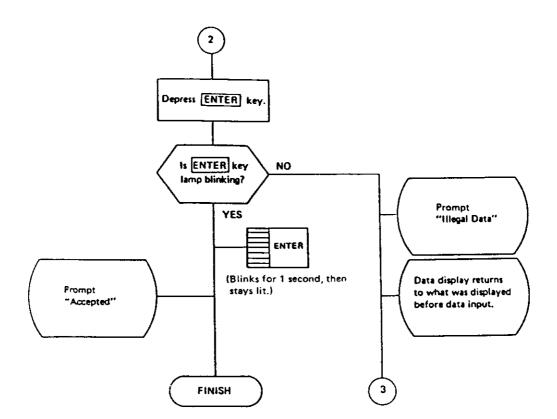


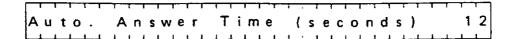
' Figure 4.3.3.6.1

4.3.3.7 Automatic Answer Time (Item 7)

Feature: Setting Automatic Answer time







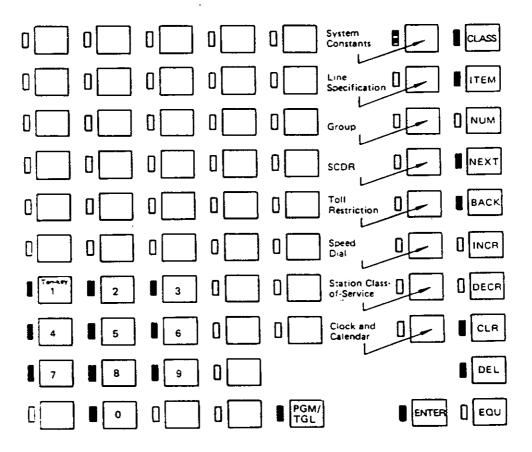
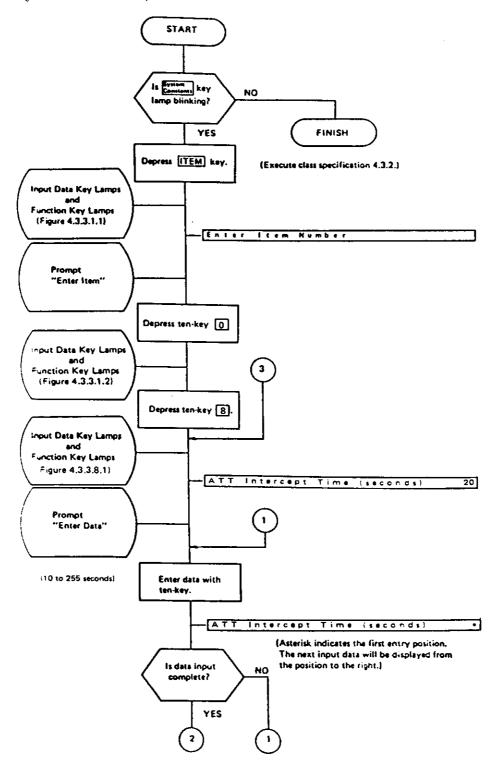
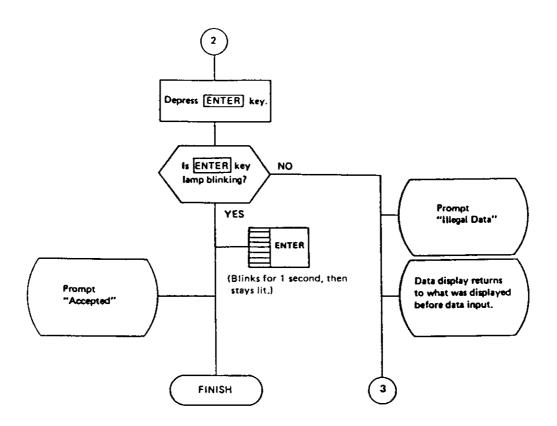


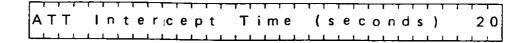
Figure 4.3.3.7.1

4.3.3.8 Attendant Intercept (Item 8)

Feature: Setting Attendant Intercept time







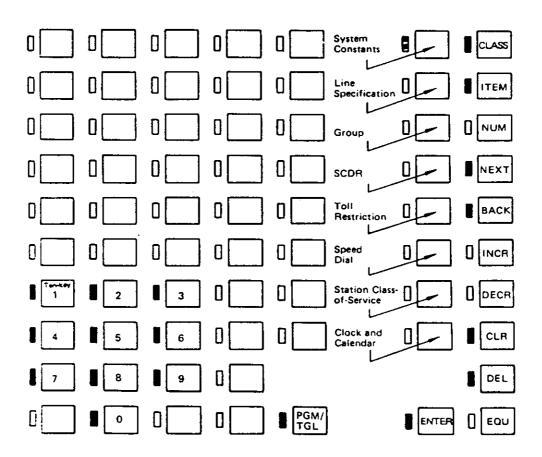
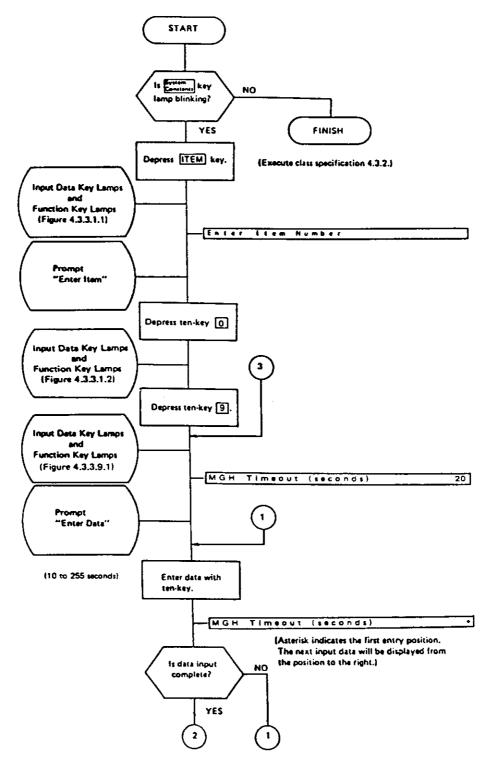
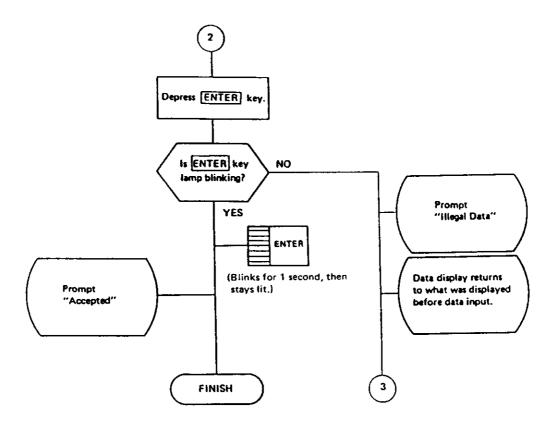


Figure 4.3.3.8.1

4.3.3.9 Master Group Hunt Timeout (Item 9)

Feature: Setting Master Group Hunt Timeout time







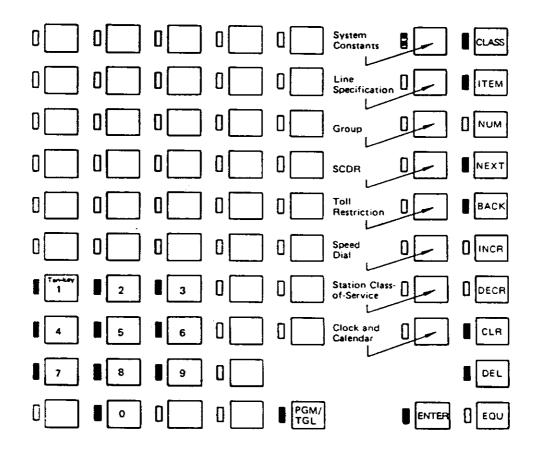
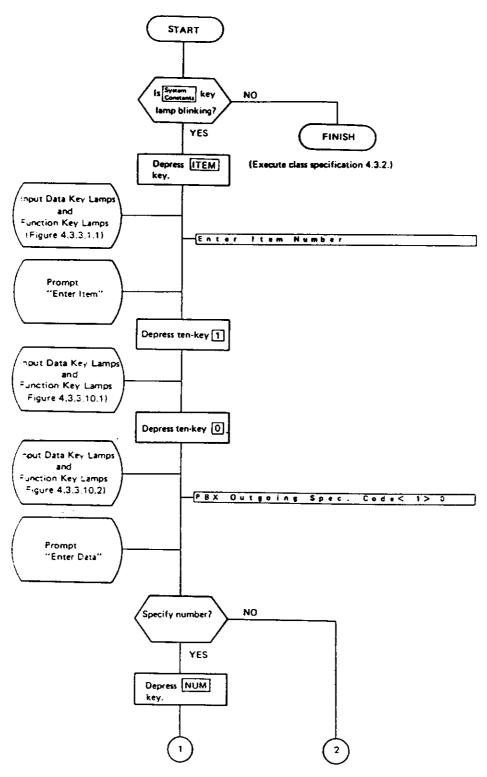
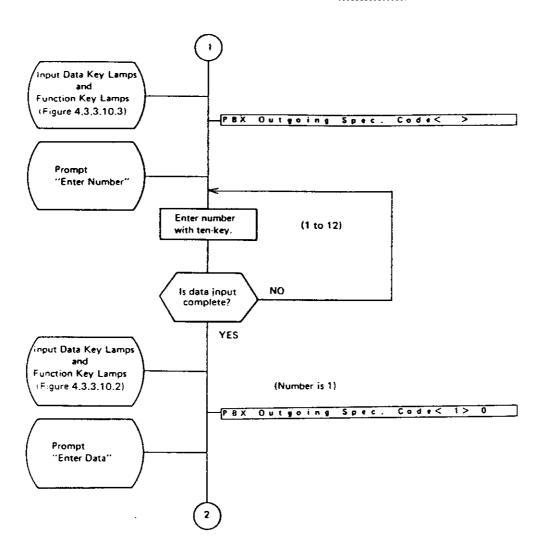


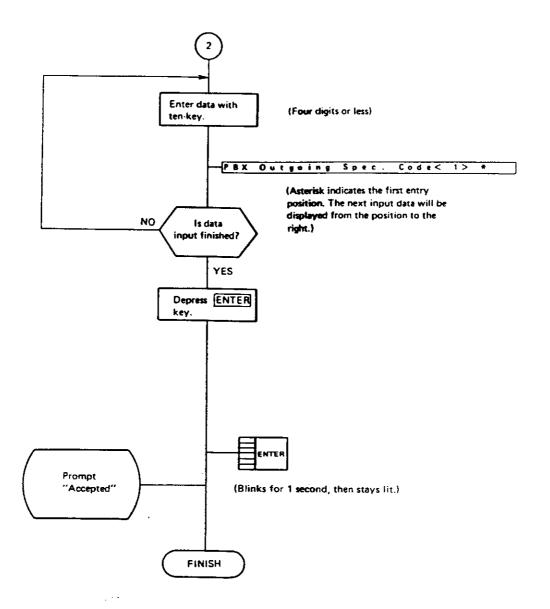
Figure 4.3.3.9.1

4.3.3.10 PBX Outgoing Specific Code (Item 10)

Feature: Setting PBX Outgoing Specific Code







Enter Item Number

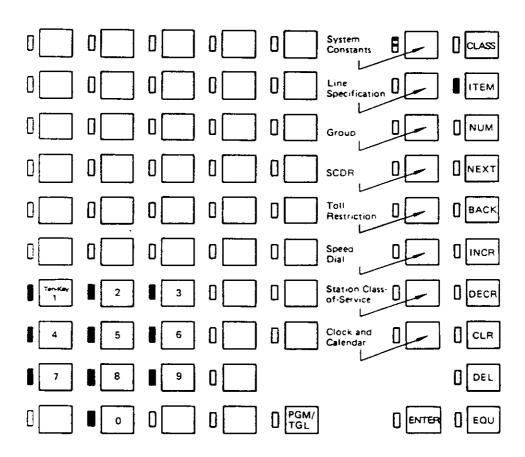


Figure 4.3.3.10.1

PBX Outgoing Spec. Code < 1>

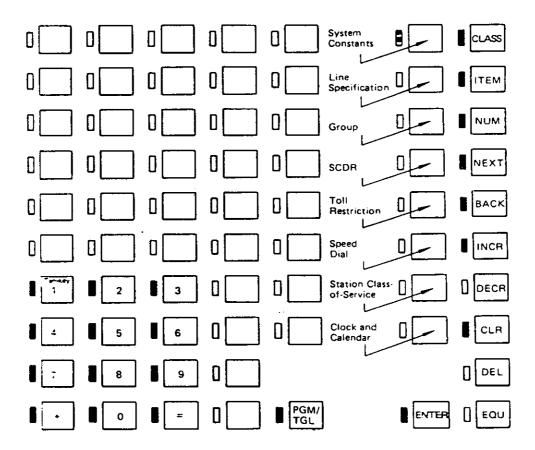


Figure 4.3.3.10.2

PBX Outgoing Spec. Code< >

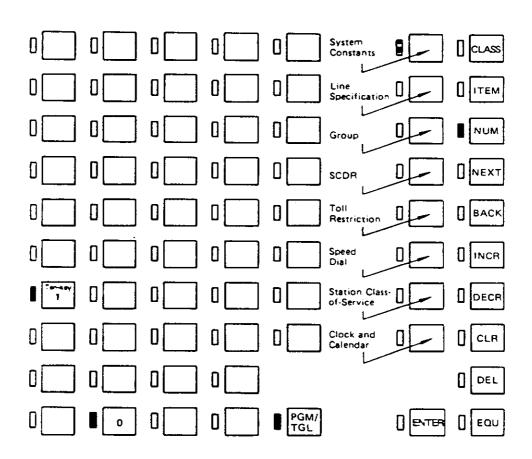
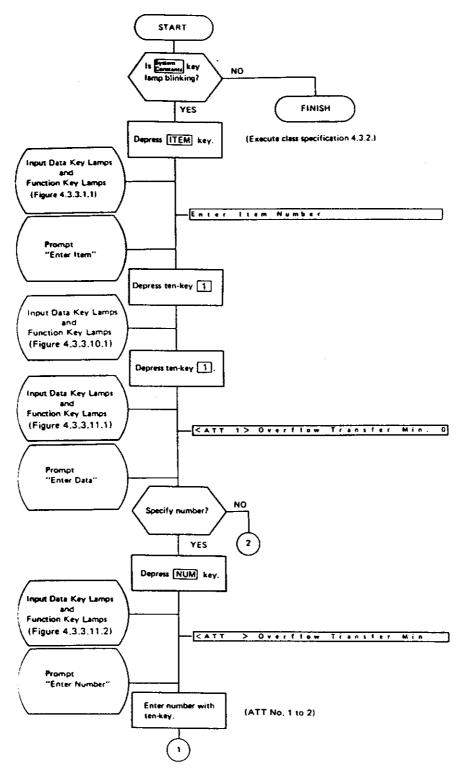
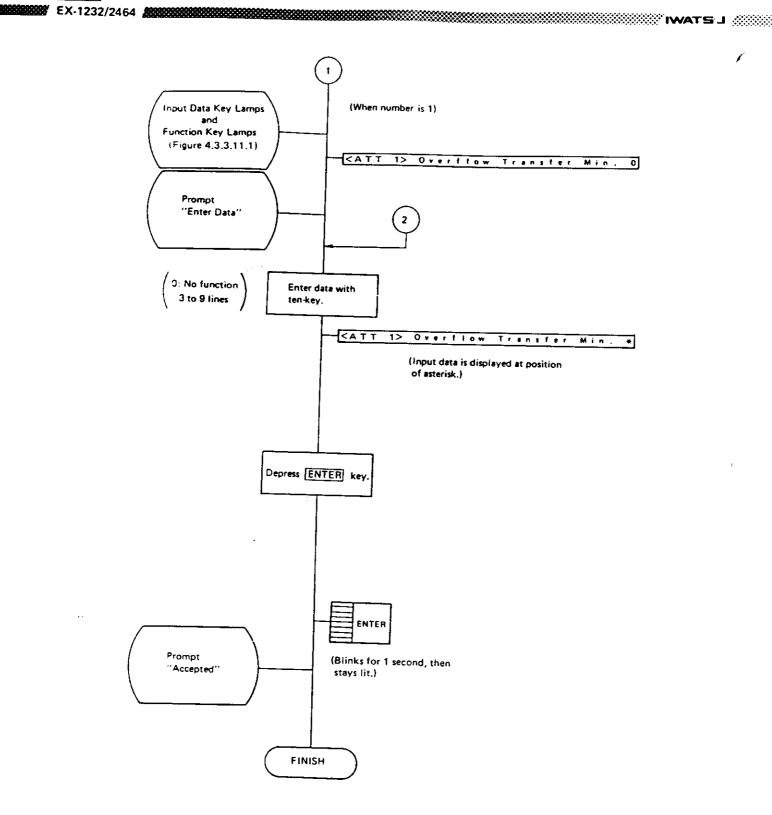


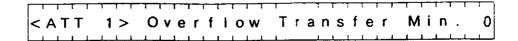
Figure 4.3.3.10.3

4.3.3.11 Over Transfer Minimum (Item 11)

Feature: Setting minimum line number for Over Transfer







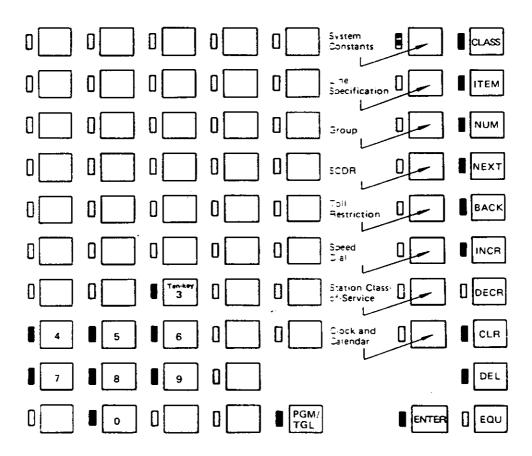


Figure 4.3.3.11.1

< ATTTransfer Overflow Min.

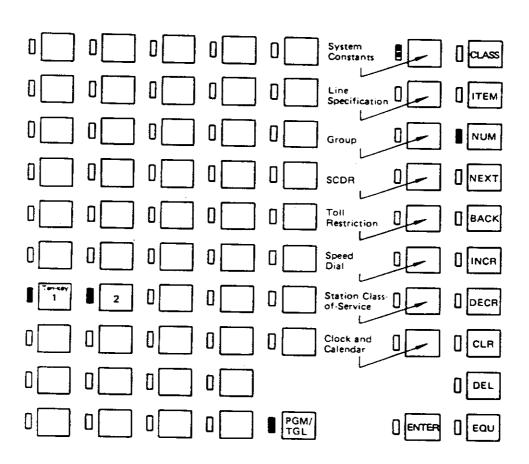
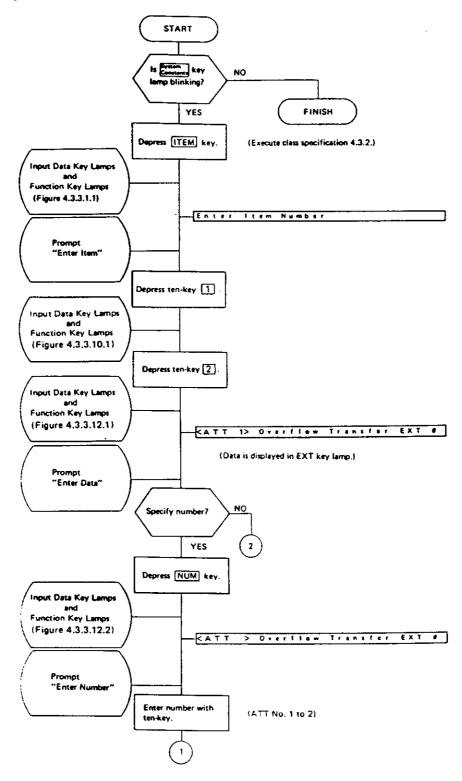
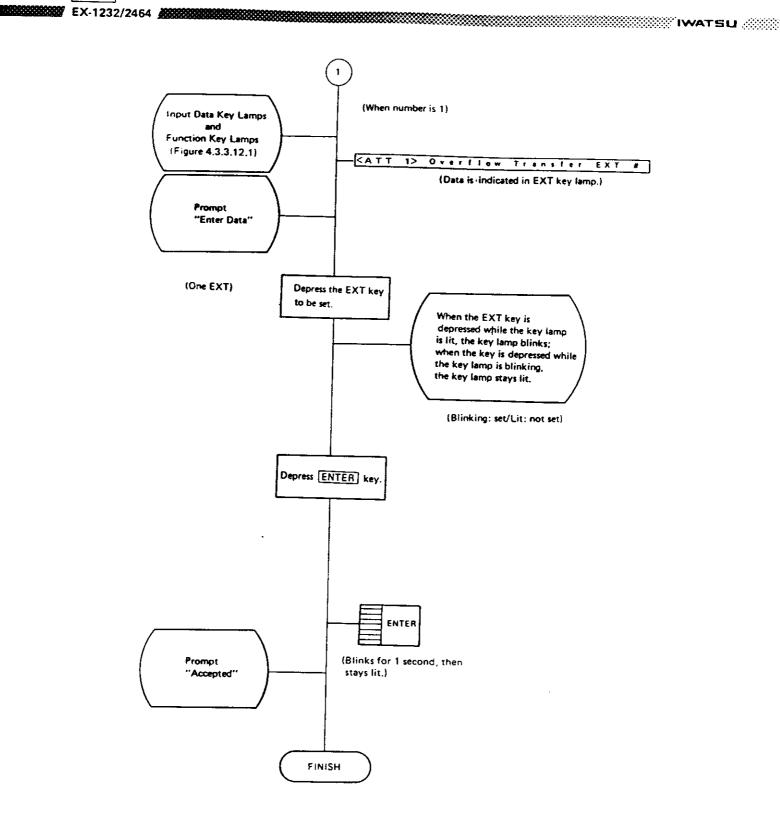


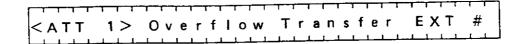
Figure 4.3.3.11.2

4.3.3.12 Overflow Transfer Extensions (Item 12)

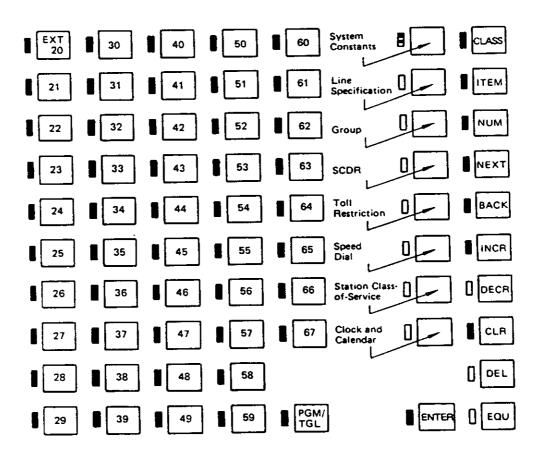
Feature: Setting Overflow Transfer Extension number







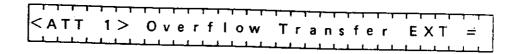
Key Lamp



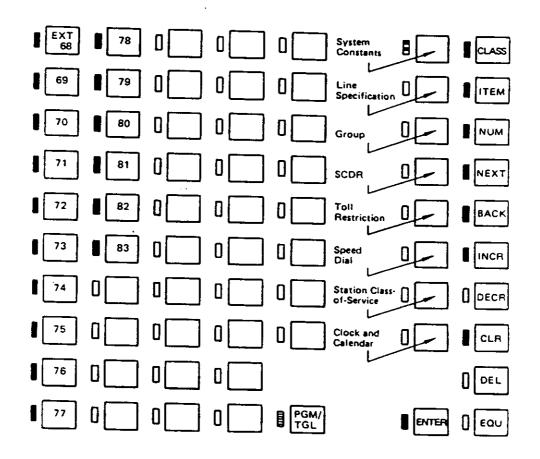
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.3.12.1.a



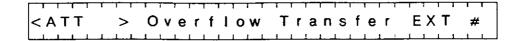
Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.3.12.1.b

6.6



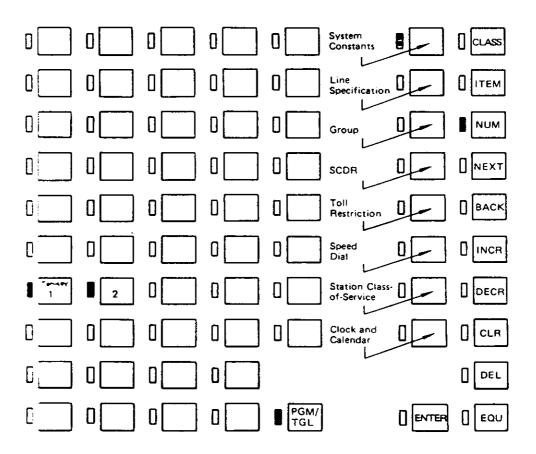
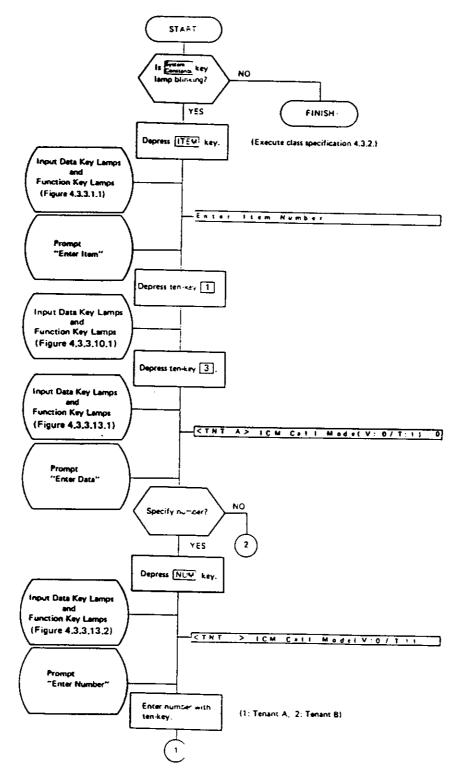
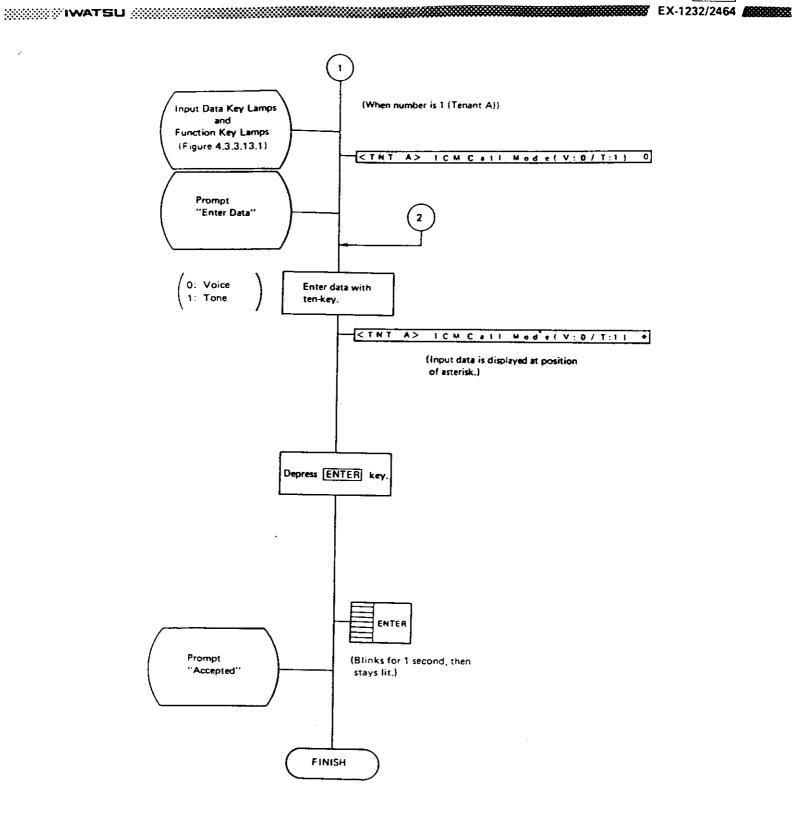


Figure 4.3.3.12.2

4.3.3.13 ICM Call Mode (Item 13)

Setting ICM Call Mode Feature:





<TNT A> ICM Call Mode(V:0/T:1) 0

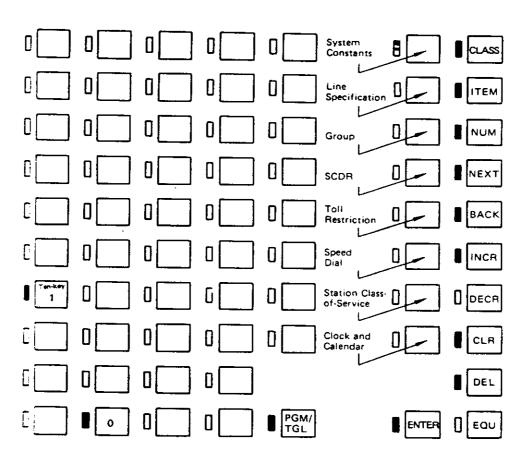


Figure 4.3.3.13.1



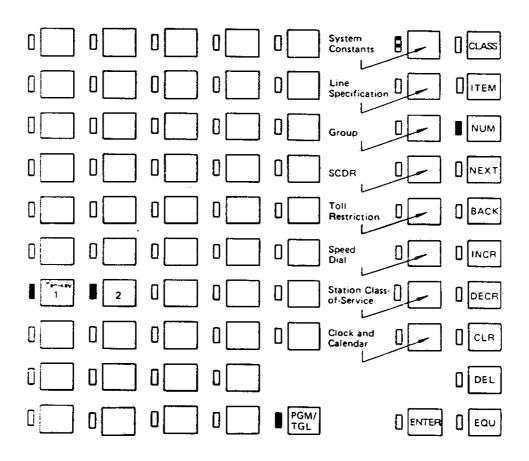
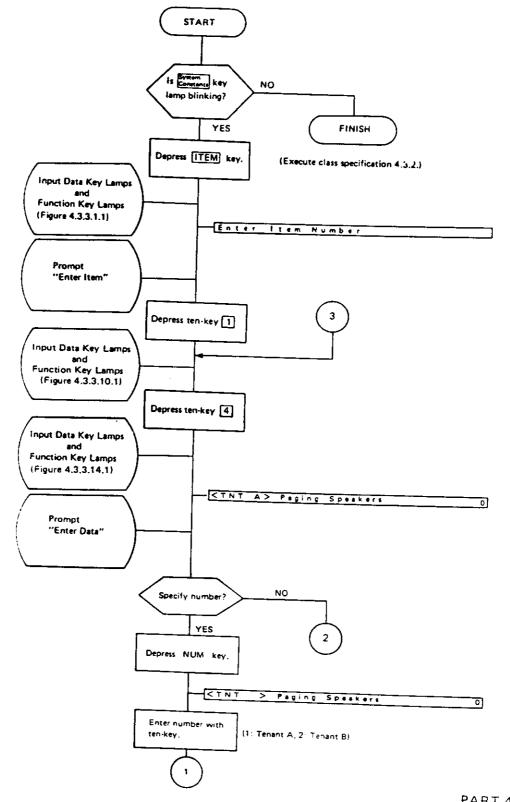
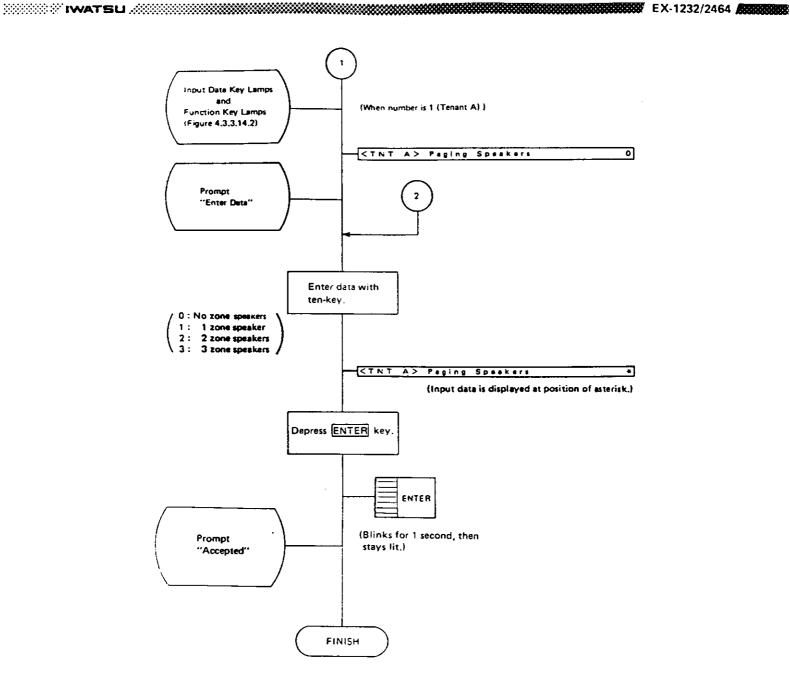


Figure 4.3.3.13.2

4.3.3.14 External Paging Speakers (Item 14)

Feature: Setting External Paging Speakers





Paging < T N T A > Speakers 0

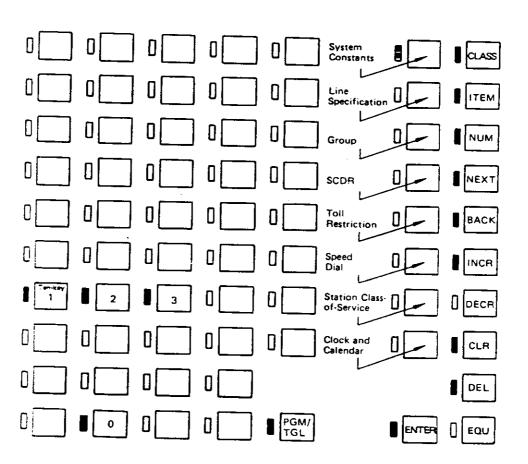
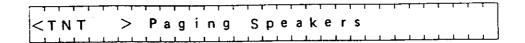


Figure 4.3.3.14.1



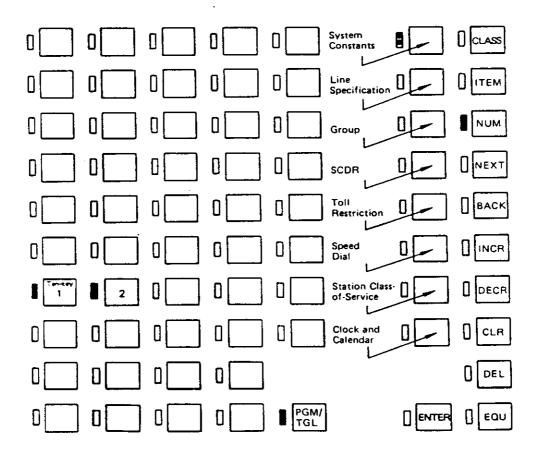
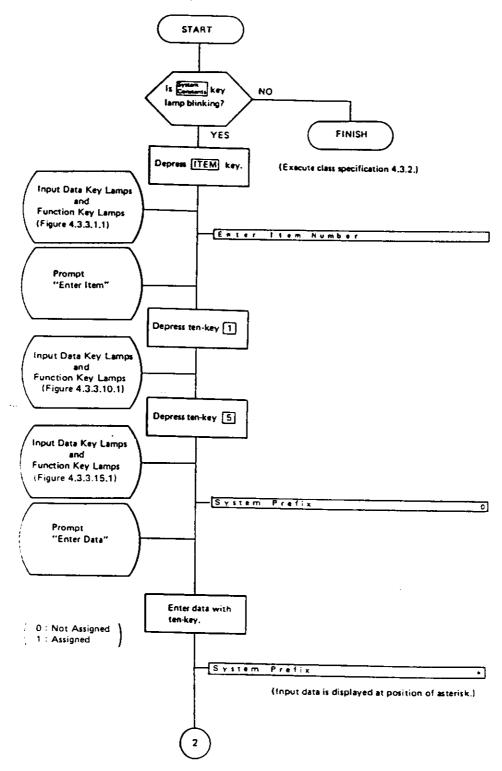


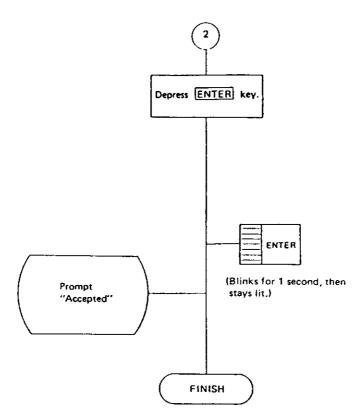
Figure 4.3.3.14.2

4.3.3.15 System Prefix (Item 15)

Feature: Set whether System Prefix is required.



2.4



System Prefix

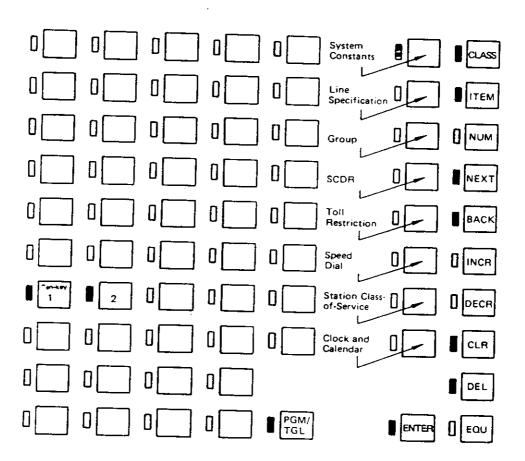
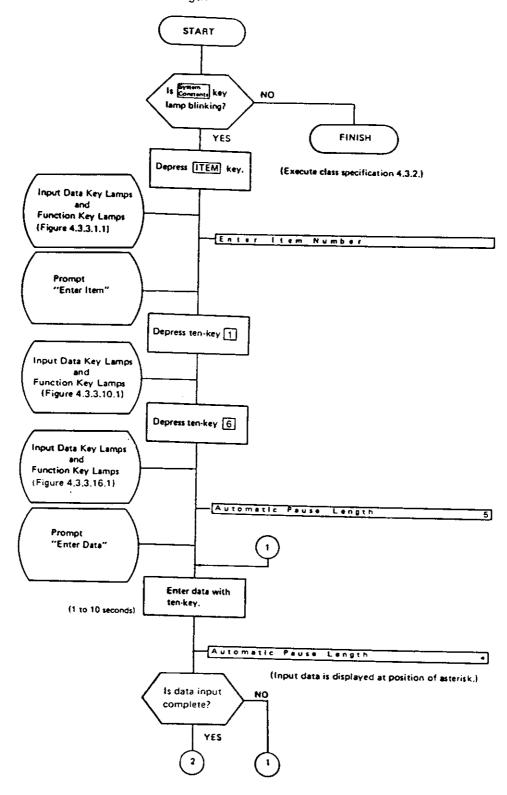
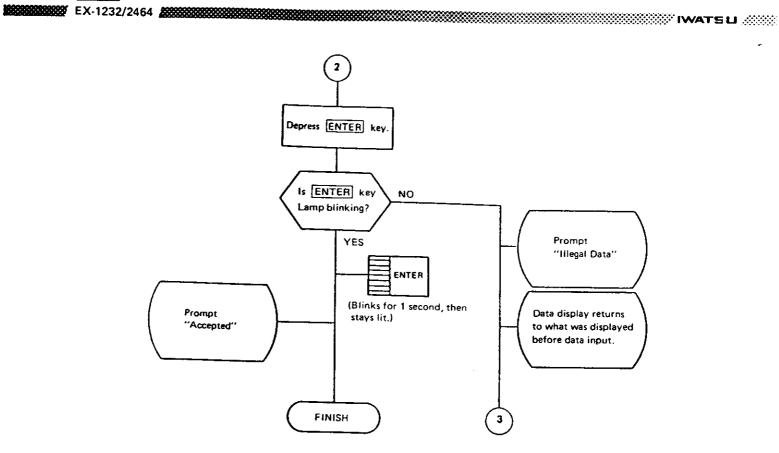


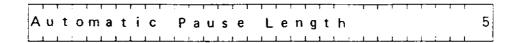
Figure 4.3.3.15.1

4.3.3.16 Automatic Pause-Length (Item 16)

Feature: Setting Automatic Pause Length







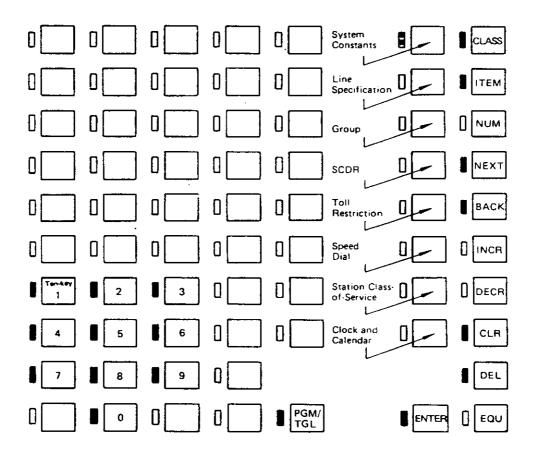
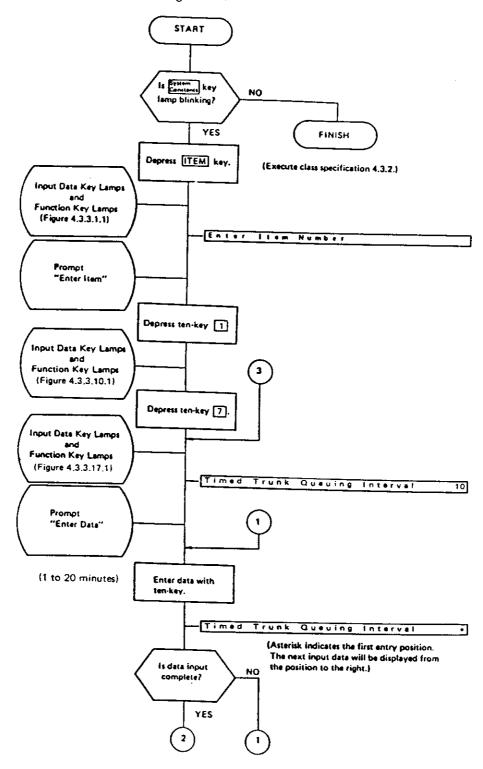
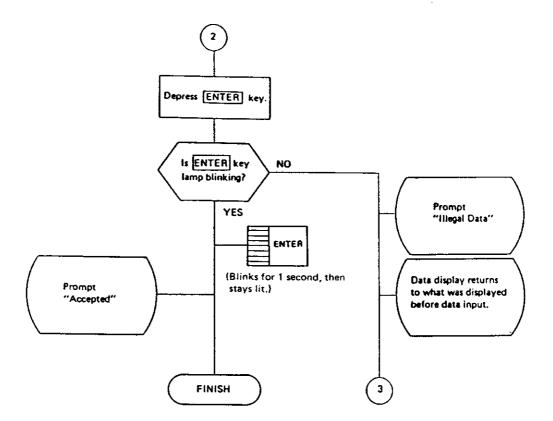


Figure 4.3.3.16.1

4.3.3.17 Timed Trunk Queuing Interval (Item 17)

Setting Timed Trunk Queuing Interval Feature:





Timed Trunk Queuing Interval 10

Key Lamp

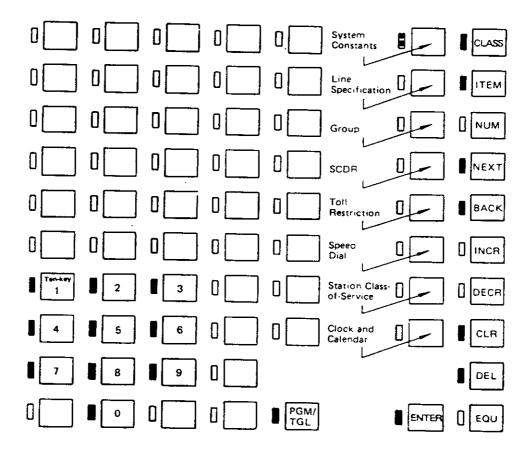
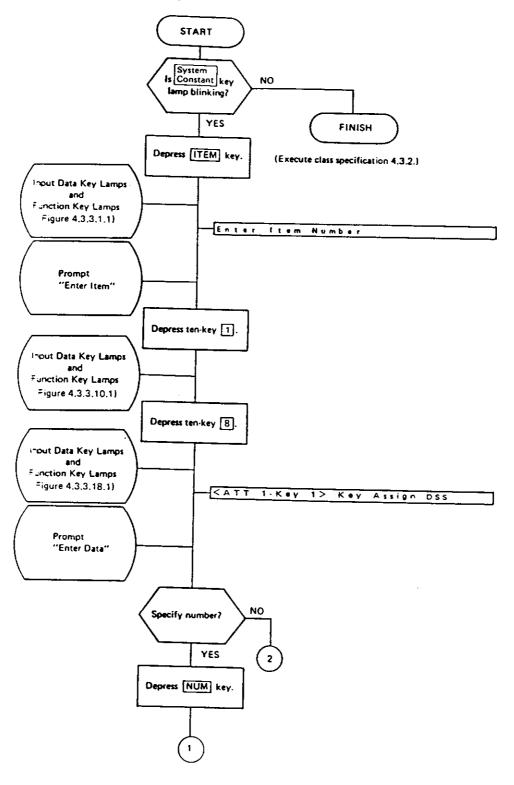
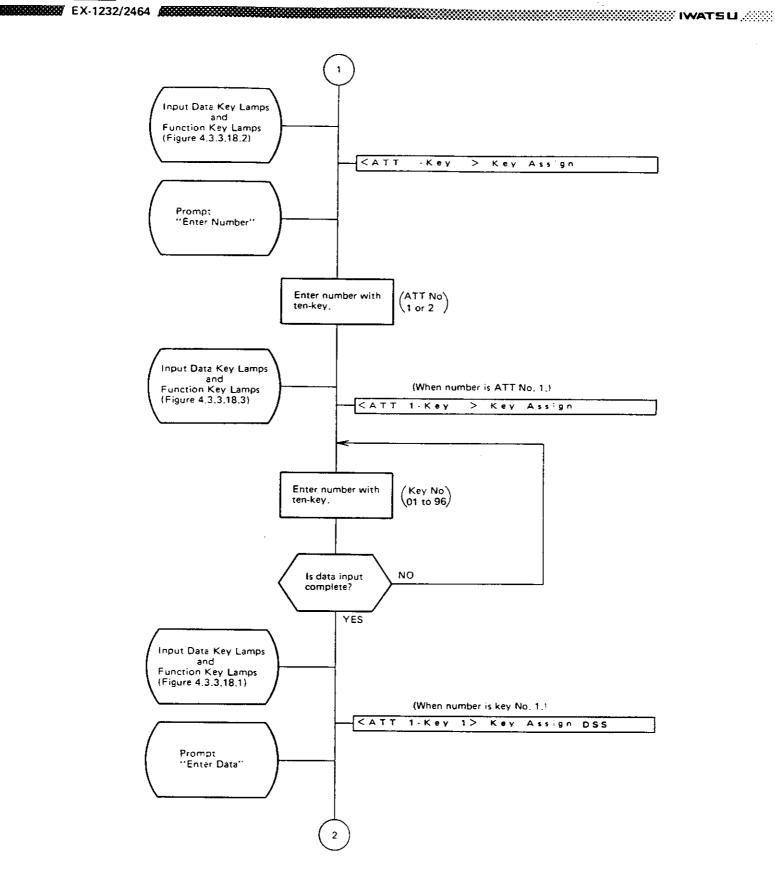


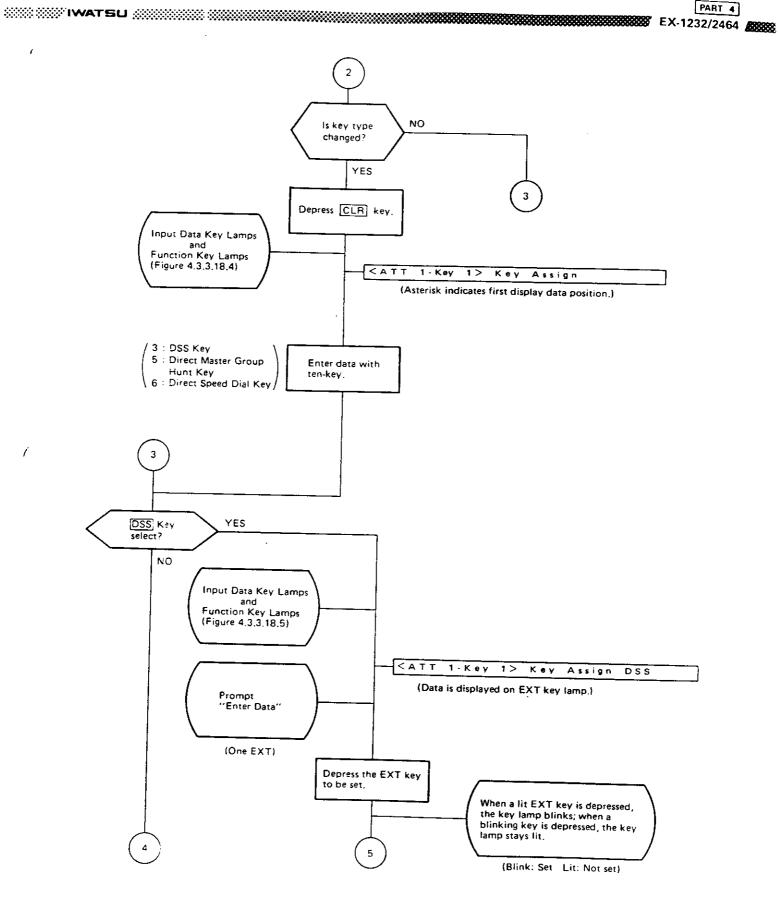
Figure 4.3.3.17.1

0.5

Setting Attendant Key Assignment Feature:

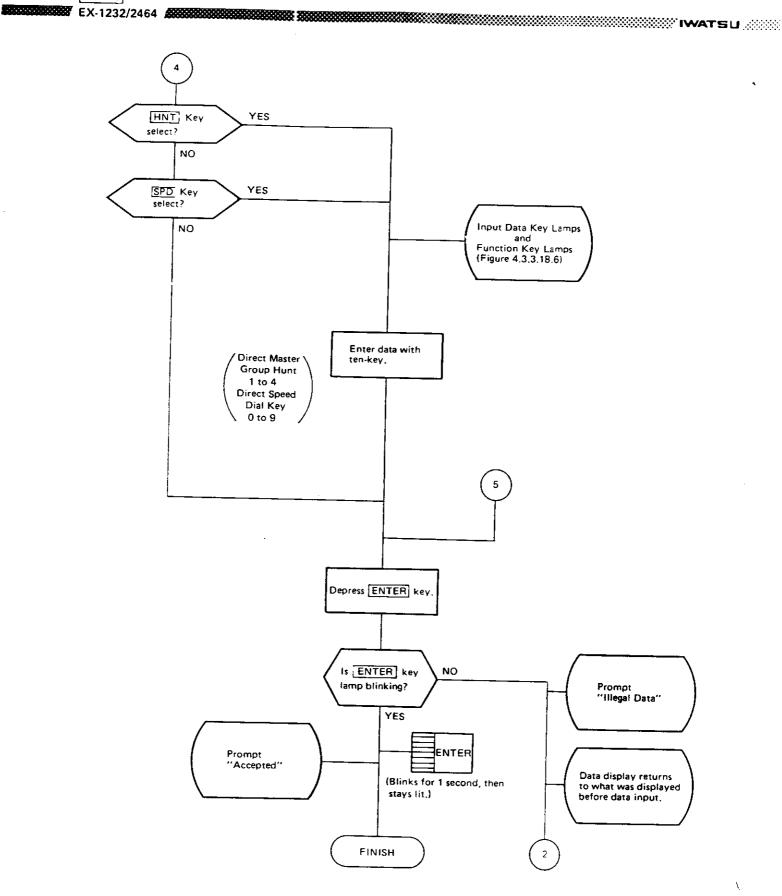




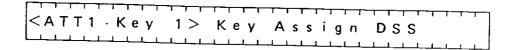


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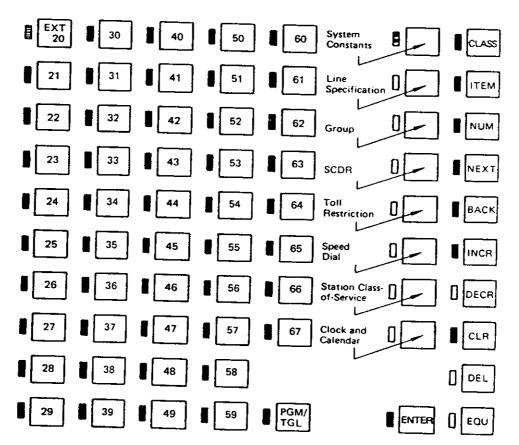
1



-3



Key Lamp

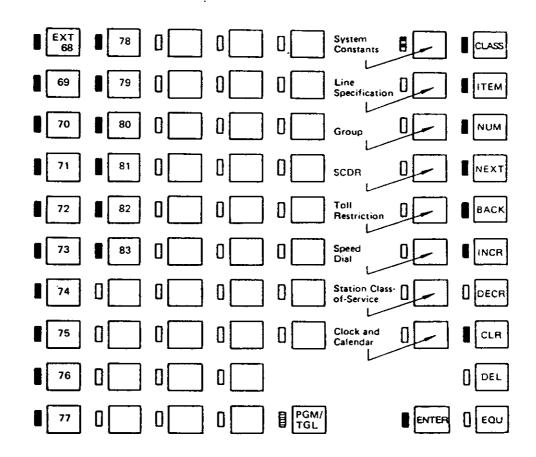


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal side mode of the input data keys.

Figure 4.3.3.18.1.a

ATT1-Key 1> Key Assign DSS

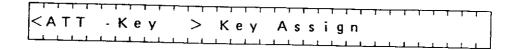
Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.3.18.1.b



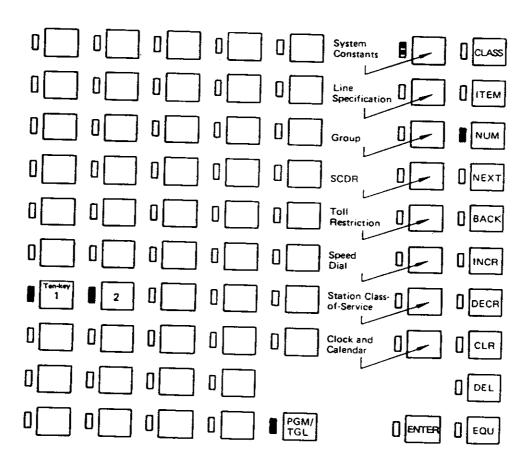
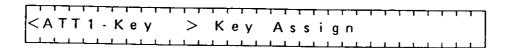


Figure 4.3.3.18.2



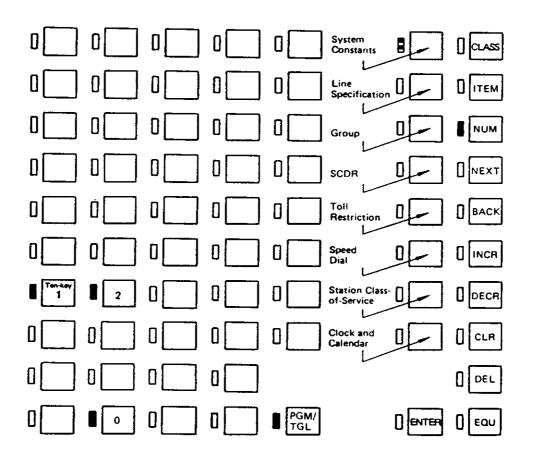
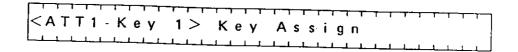


Figure 4.3.3.18.3



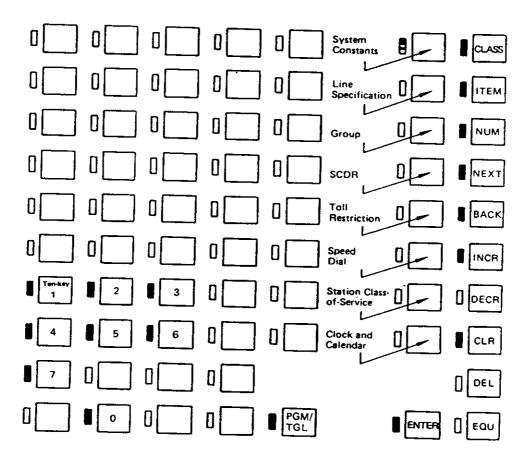
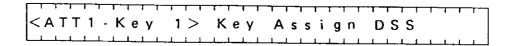
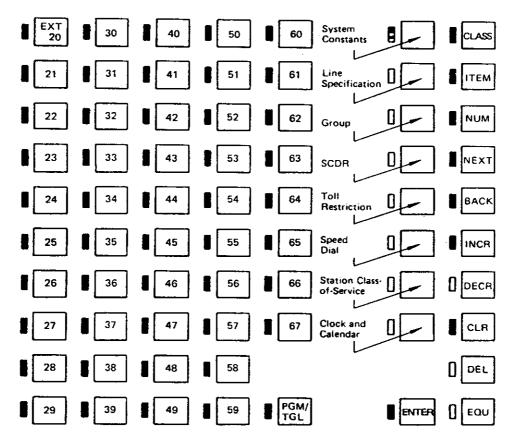


Figure 4.3.3.18.4



Key Lamp

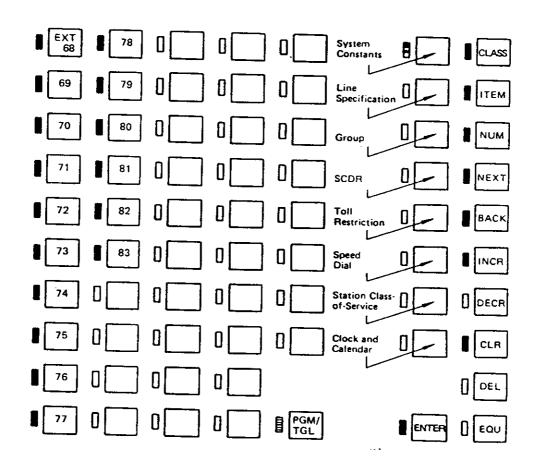


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.3.18.5.a

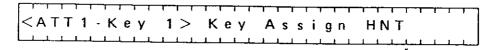
< ATT 1 - Key 1 > Кеу Assign DSS

Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.3.18.5.b



* The selected key type is displayed on LCD.

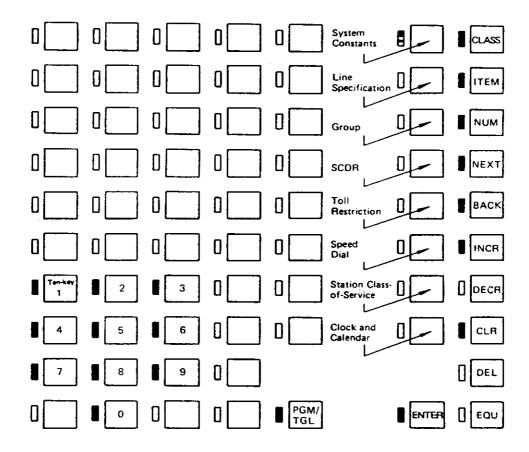
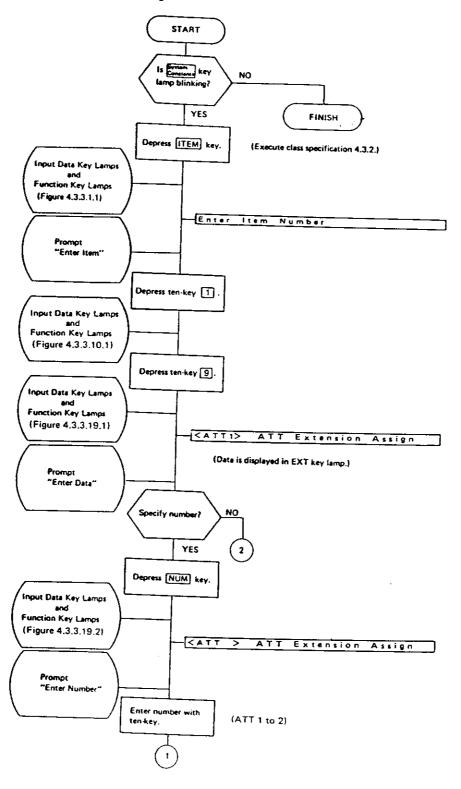
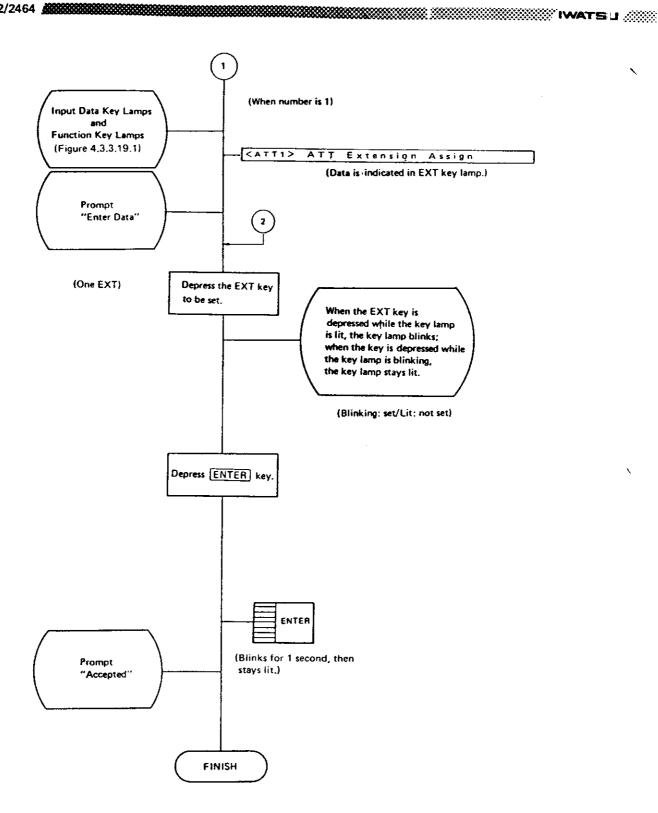


Figure 4.3.3.18.6

Attendant EXT Assignment (Item 19) 4.3.3.19

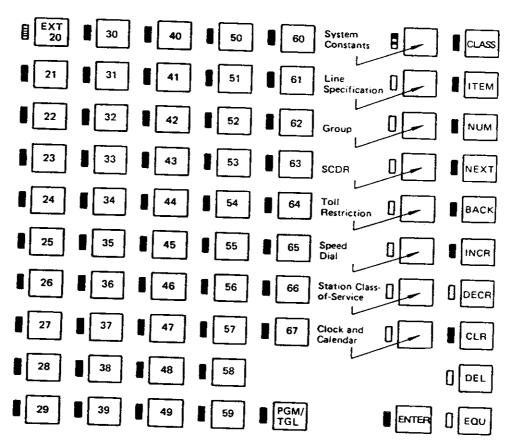
Feature: Setting Attendant EXT Assignment





< A T T 1 > ATT Extension Assign

Key Lamp

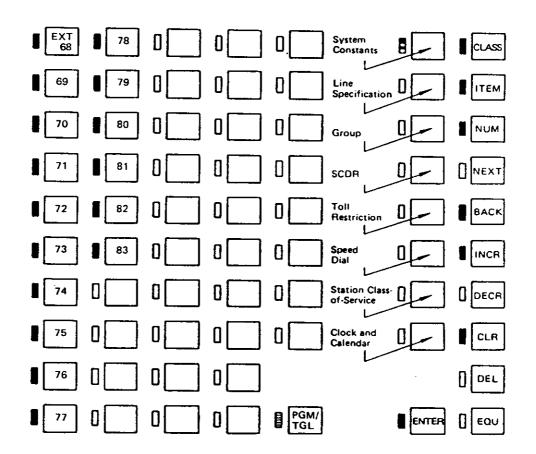


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.3.19.1.a

<ATT 1 > ATT Extension Assign

Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.3.19.1.b

<ATT ATT Extension Assign

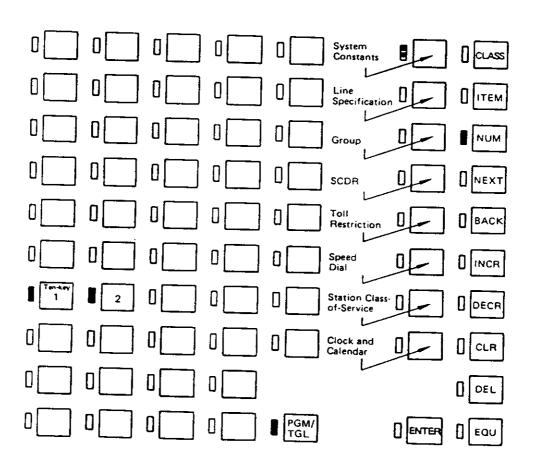


Figure 4.3.3.19.2

4.3.4 Programming of Line Specification

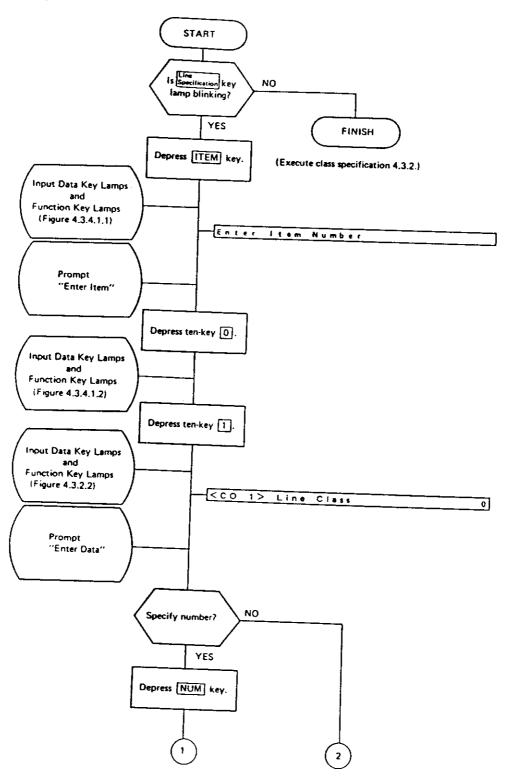
When Line Specification Class is specified with the operation described in Section 4.3.2, the following settings may be entered:

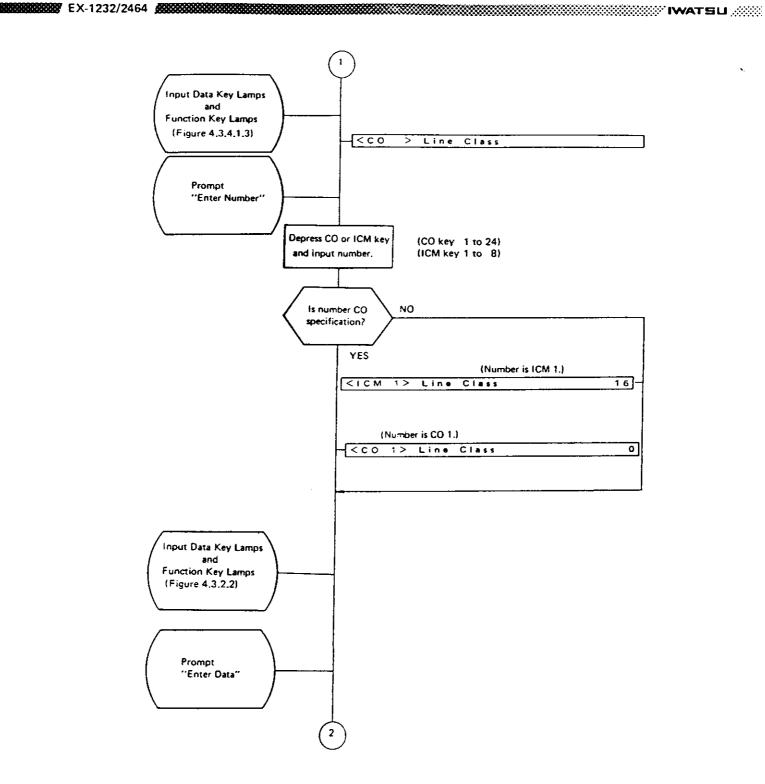
- Item 1) Line Class
- Item 2) Tenant Group
- Item 3) Universal Night Assignment
- Item 4) Automatic Night Assignment
- Item 5) Outgoing Level
- Item 6) Toll Restriction Group
- Item 7) Flash Signal Interval
- Item 8) Prefix Dial
- Item 9) Disconnect Signal
- Item 10) COL Attendant Intercept
- Item 11) Individual Incoming Extension
- Item 12) CO Outgoing Group

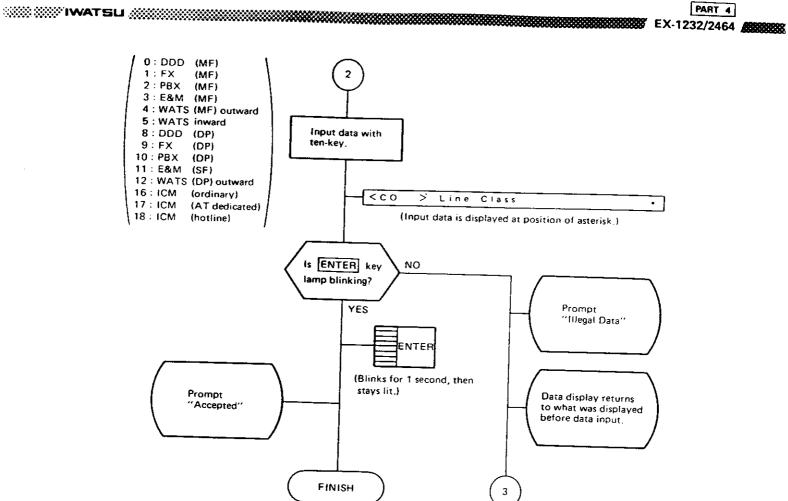
When system data (Line Specification) of a busy trunk is renewed (ENTER) key is depressed), the trunk is disconnected automatically.

4.3.4.1 Line Class (Item 1)

Feature: Setting Line Class Code







Enter Item Number

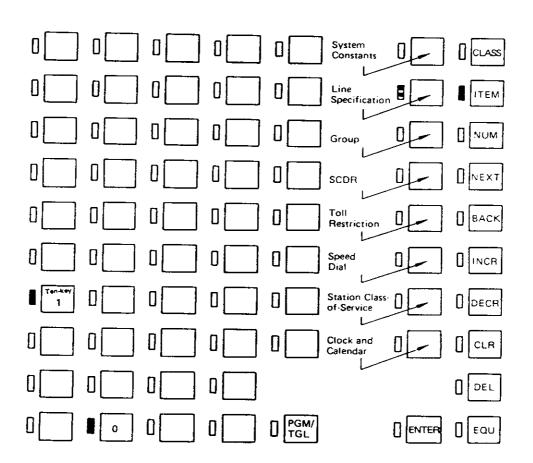


Figure 4.3.4.1.1

Enter Item Number

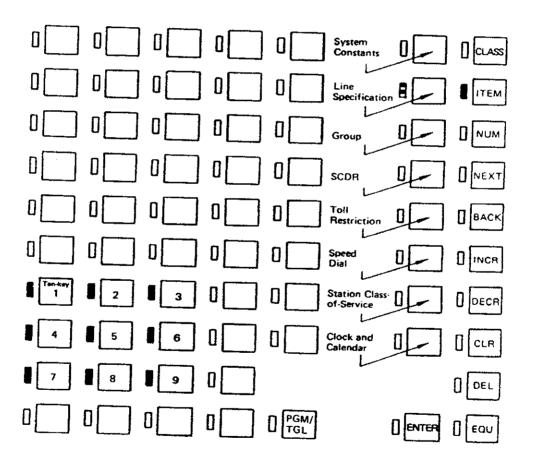
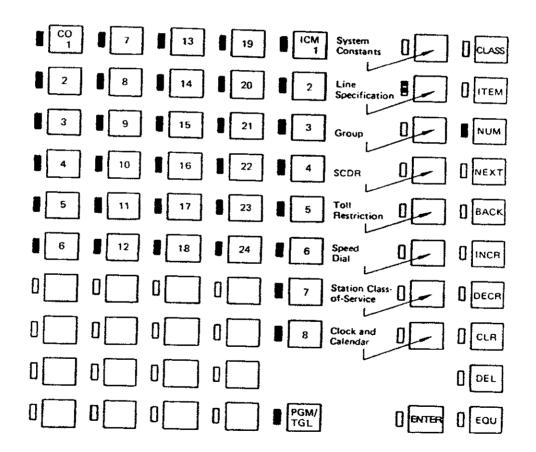


Figure 4.3.4.1.2





Key Lamp

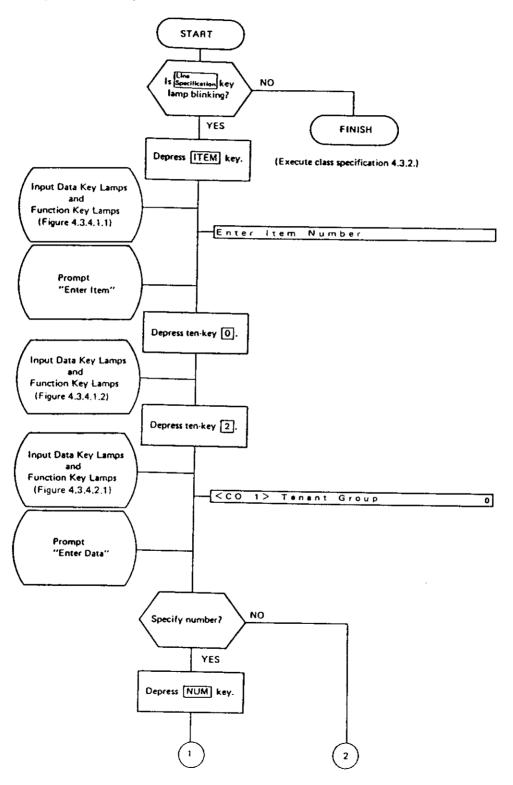


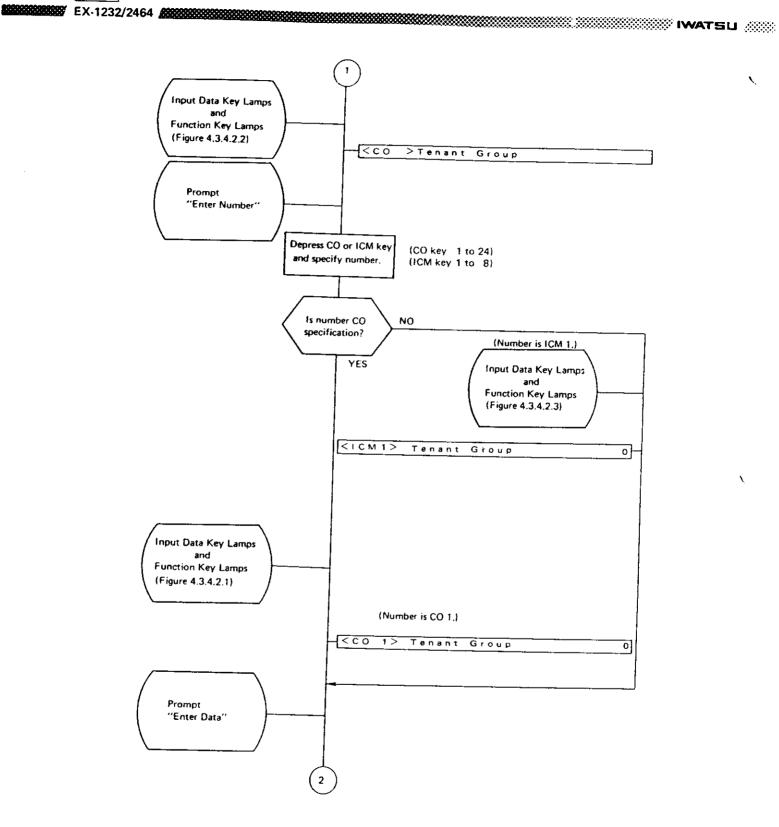
Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.4.1.3

4.3.4.2 Tenant Group (Item 2)

Feature: Setting Tenant Group





FINISH



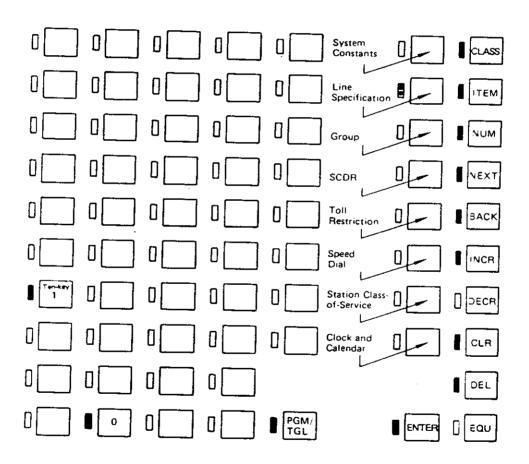
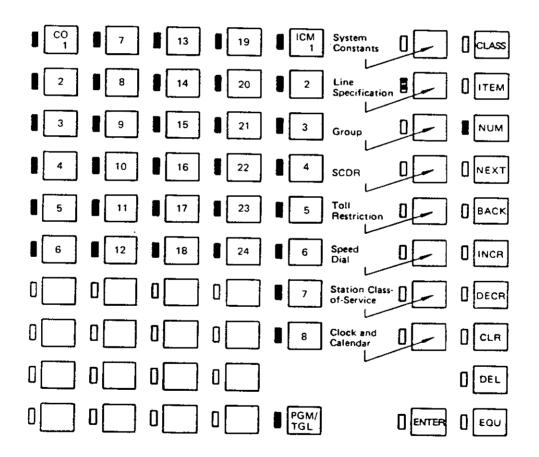


Figure 4.3.4.2.1



Key Lamp



Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.4.2.2

< 1 CM 1 > Tenant Group 0

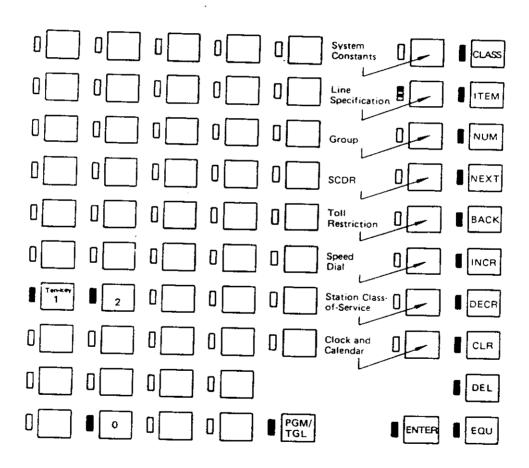
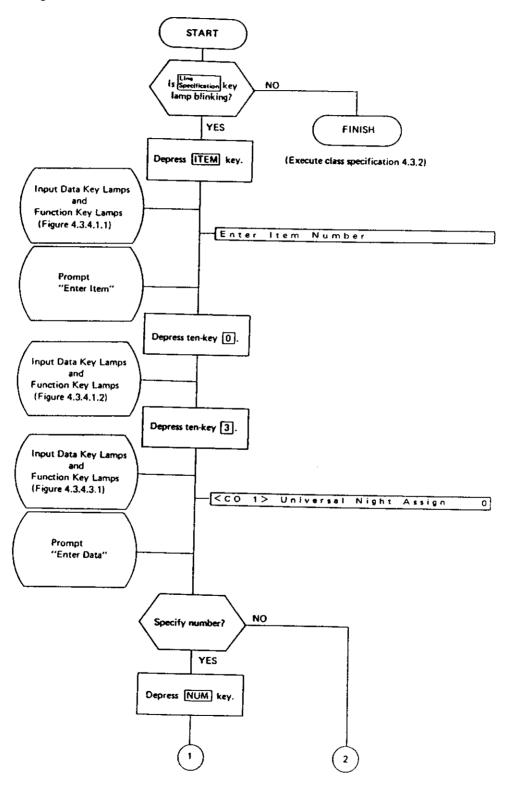


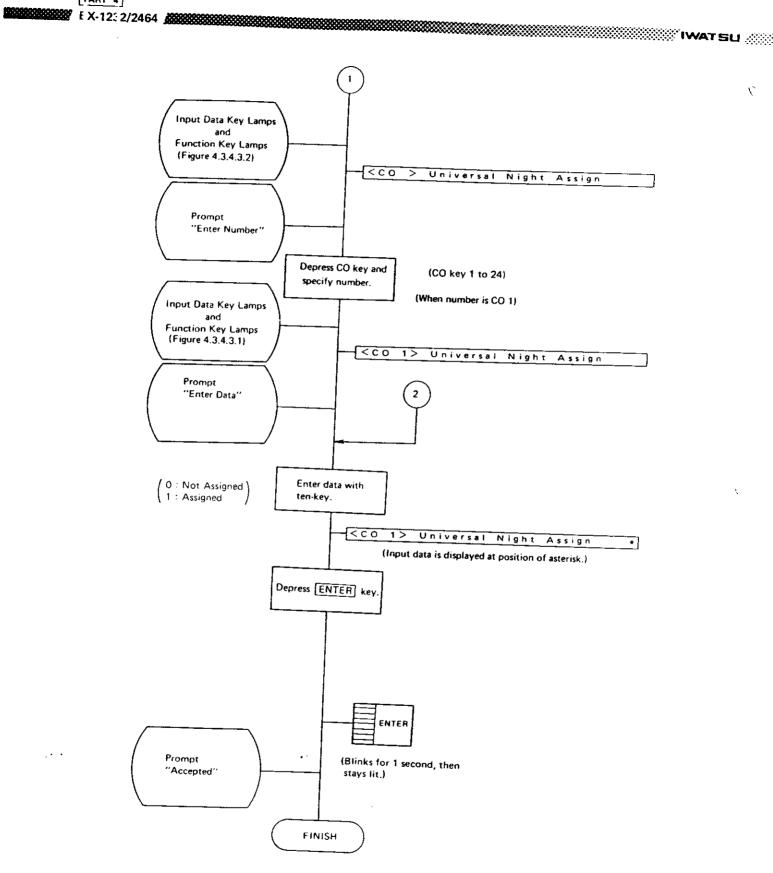
Figure 4.3,4.2.3

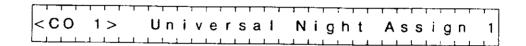
4.3.4.3 Universal Night Assignment (Item 3)

Feature: Setting UNA



1,





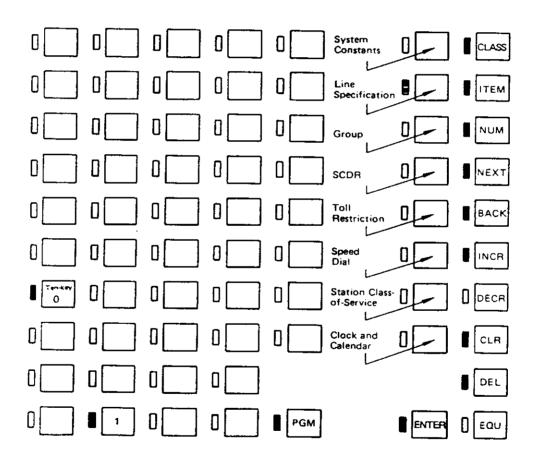
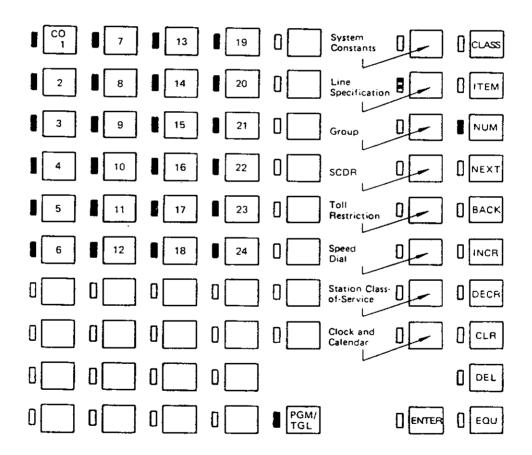


Figure 4.3.4.3.1

< C O Universal Night Assign

Key Lamp



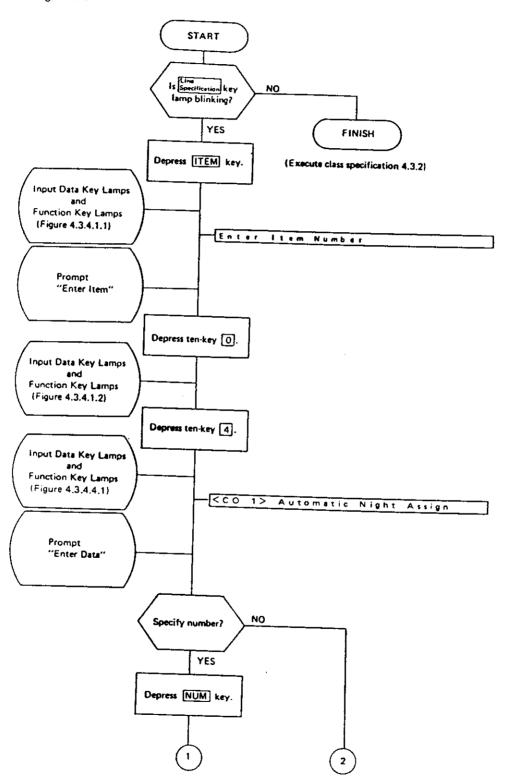
Note: Data is indicated on the key lamp assigned to CO key of input data keys.

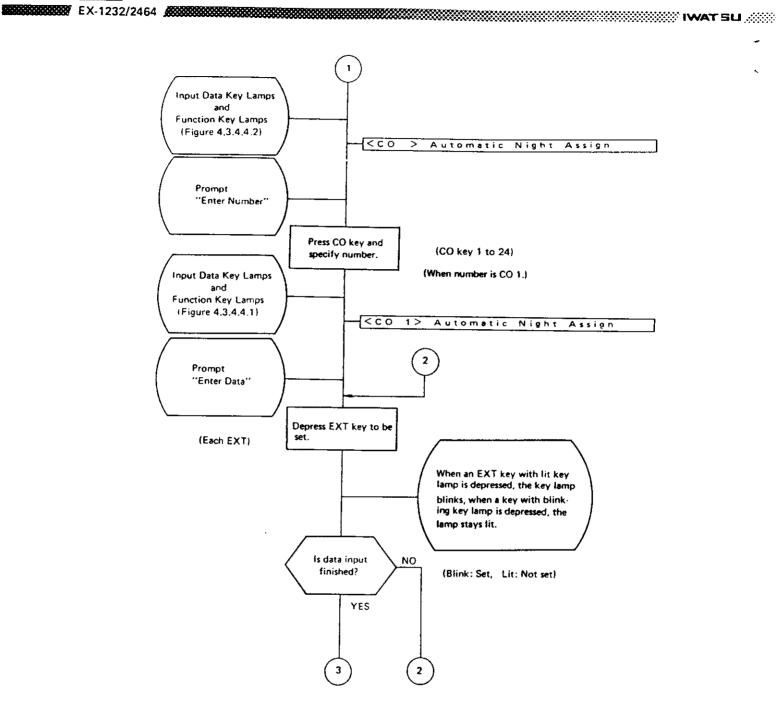
Figure 4.3.4.3.2

J. J.

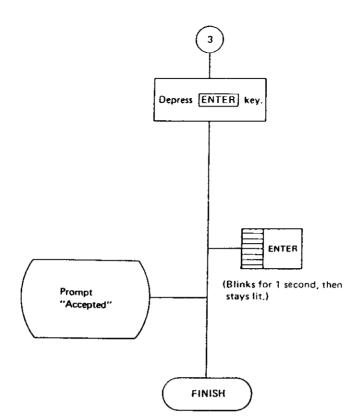
4.3.4.4 Automatic Night Assignment (Item 4)

Feature: Setting ANA



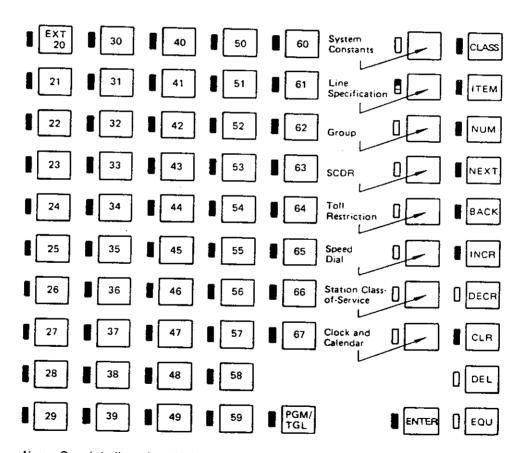


100



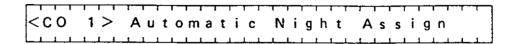
< coAutomatic Night Assign

Key Lamp

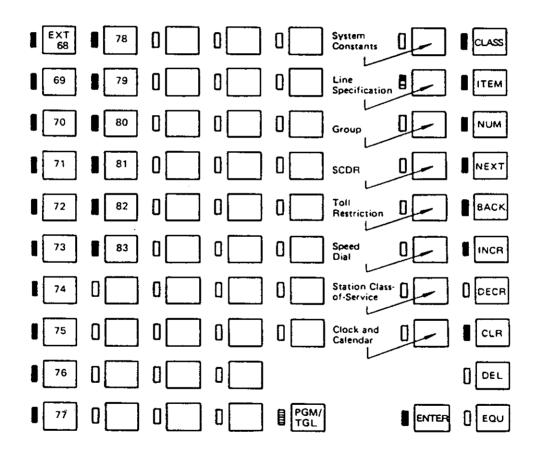


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.4.4.1.a



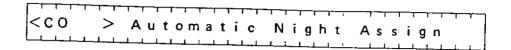
Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.4.4.1.b



Key Lamp

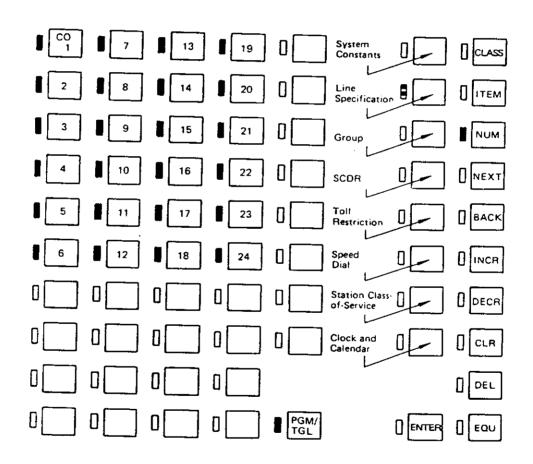
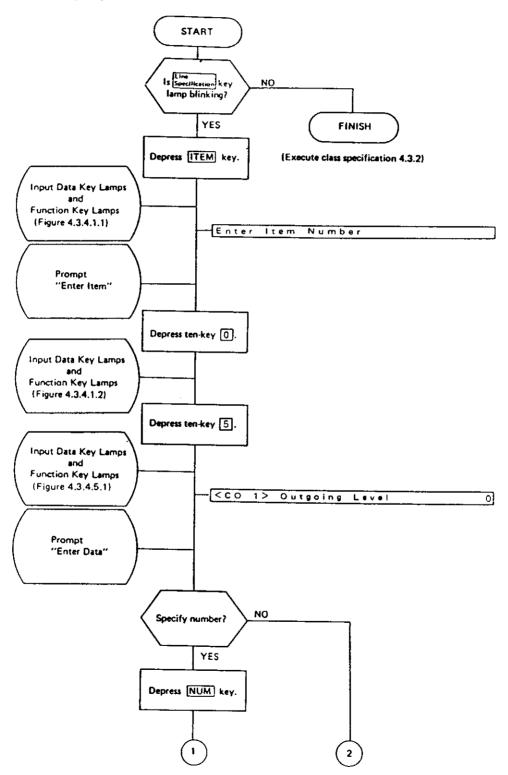
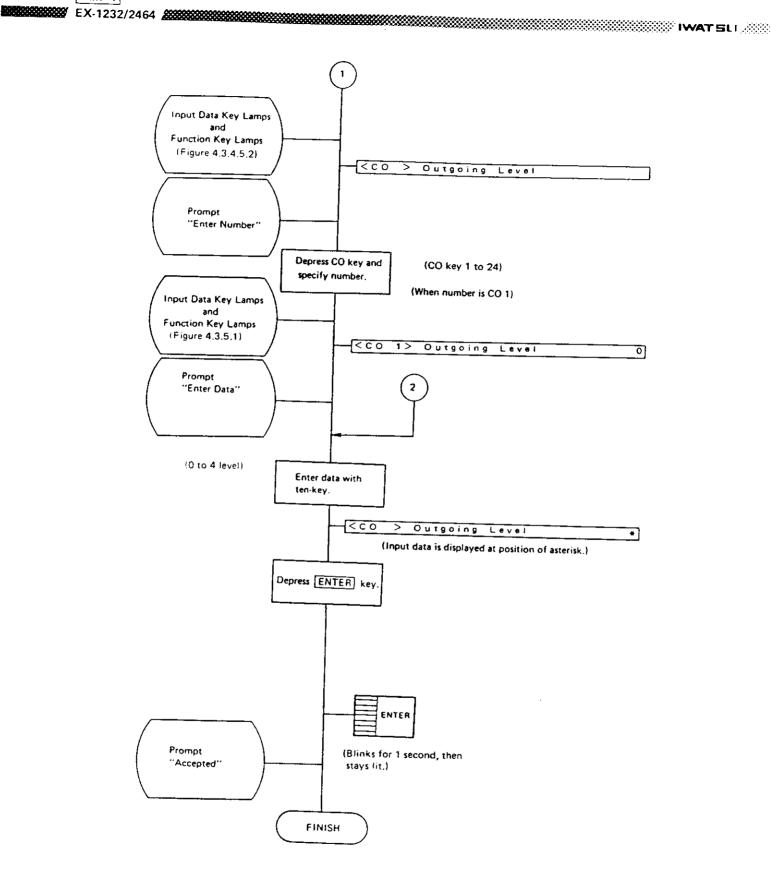


Figure 4.3.4.4.2

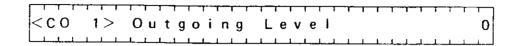
4.3.4.5 Outgoing Level (Item 5)

Feature: Setting Outgoing Level





200



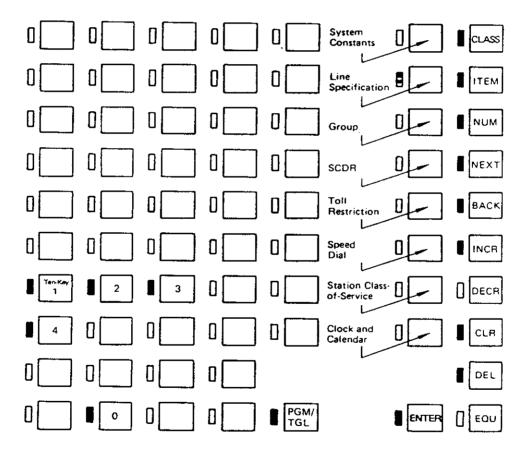


Figure 4.3.4.5.1

< C O Outgoing Level

Key Lamp

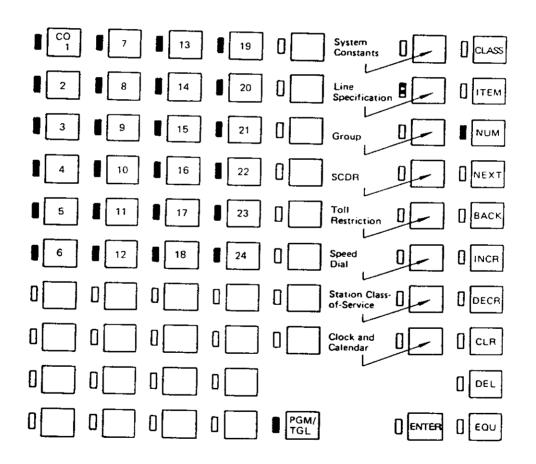
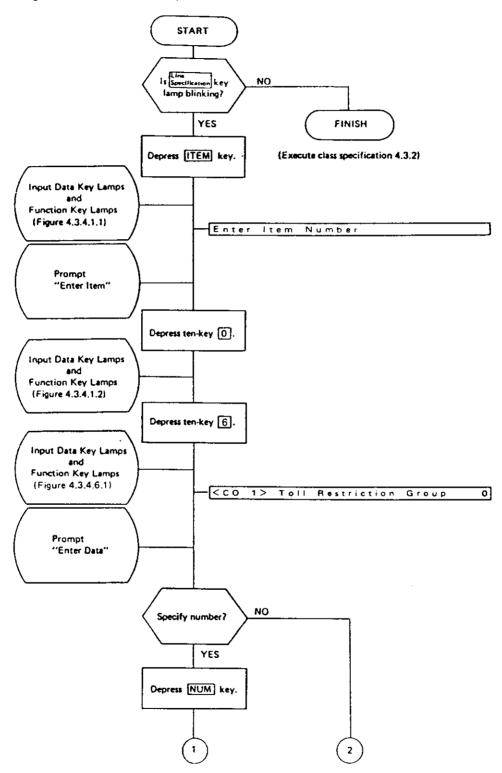
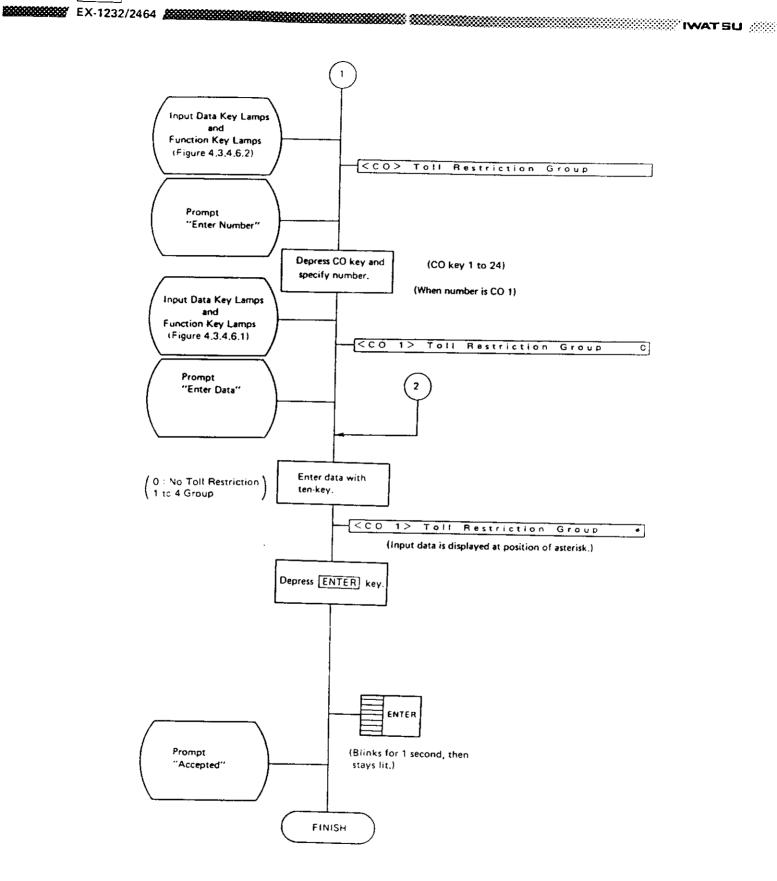


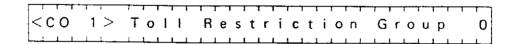
Figure 4.3.4.5.2

4.3.4.6 Toll-Restriction Group (Item 6)

Feature: Setting Toll-Restriction Group







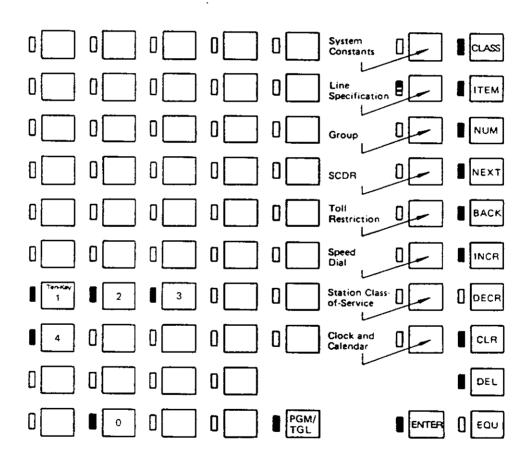


Figure 4.3.4.6.1



Key Lamp

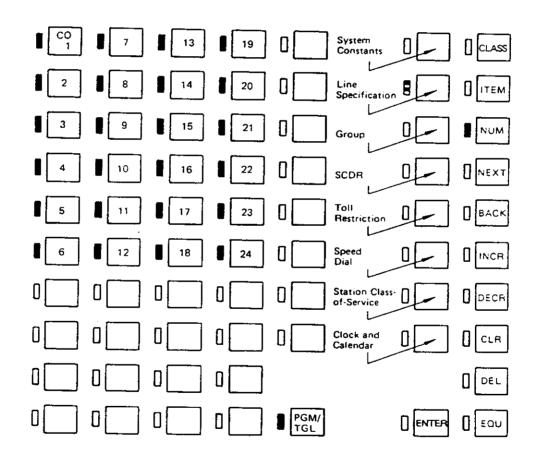
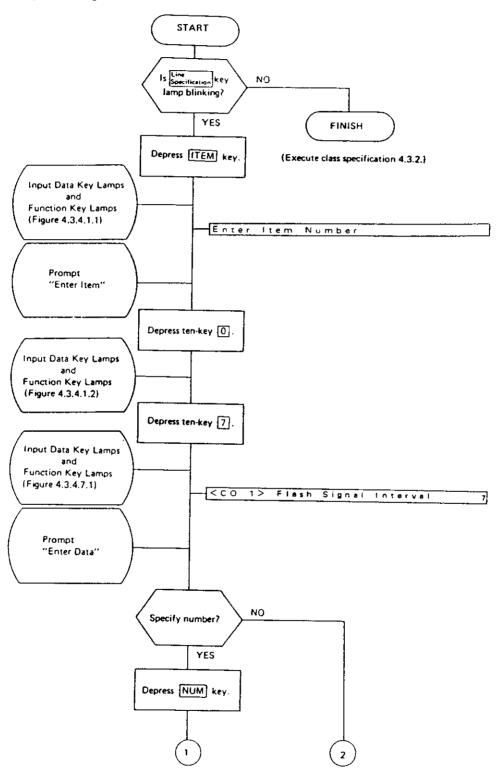
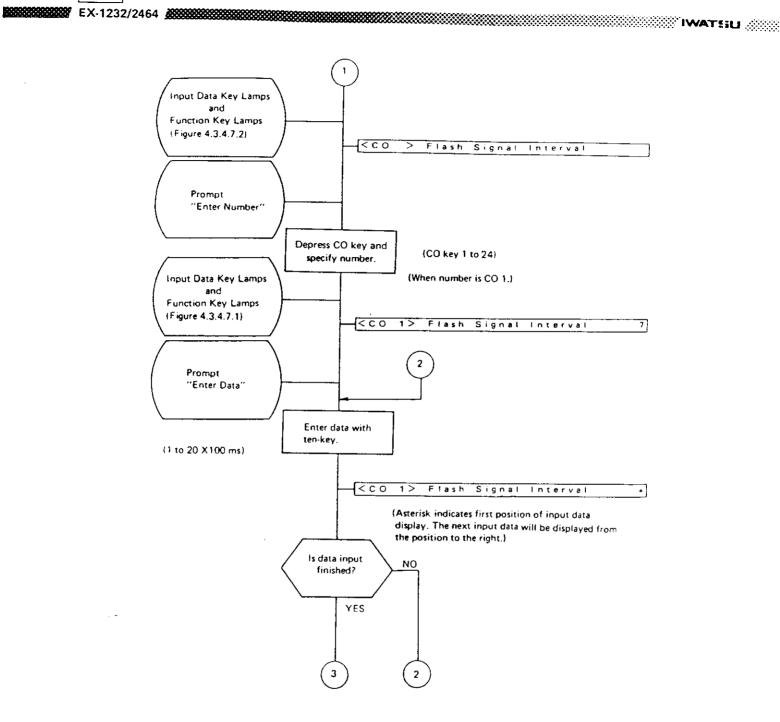


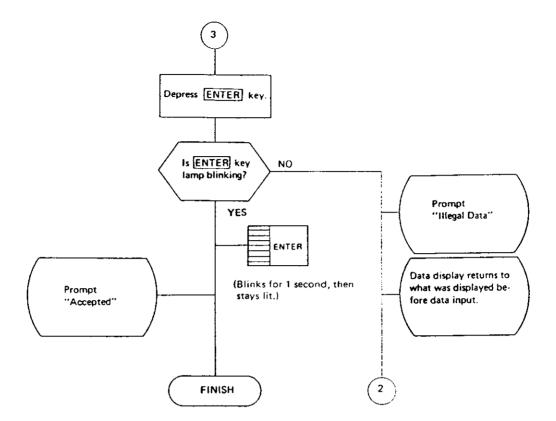
Figure 4.3.4.6.2

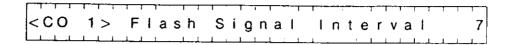
4347 Flash Signal Interval (Item 7)

Feature: Setting Flash Signal Interval









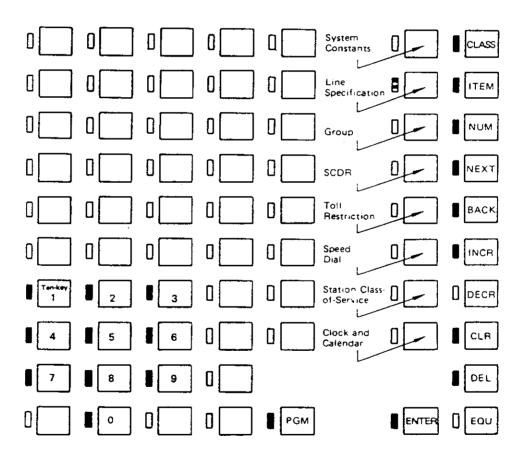
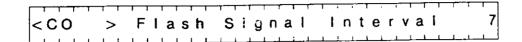


Figure 4.3.4.7.1



Key Lamp

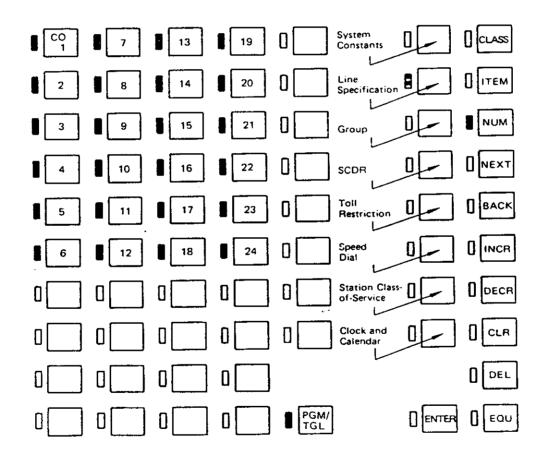
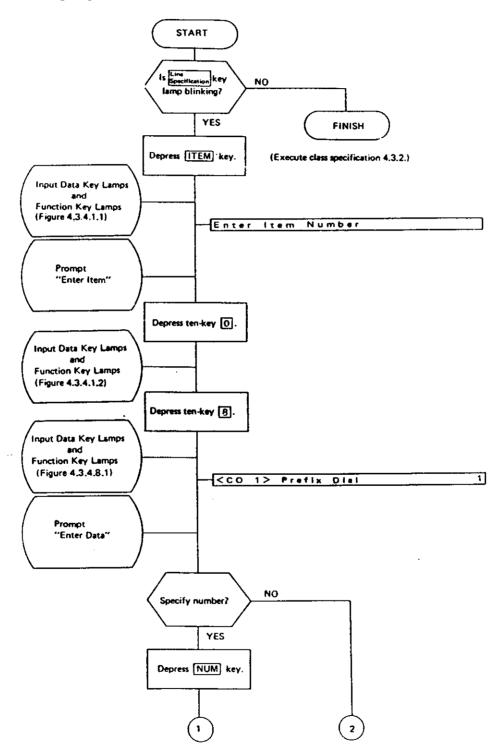


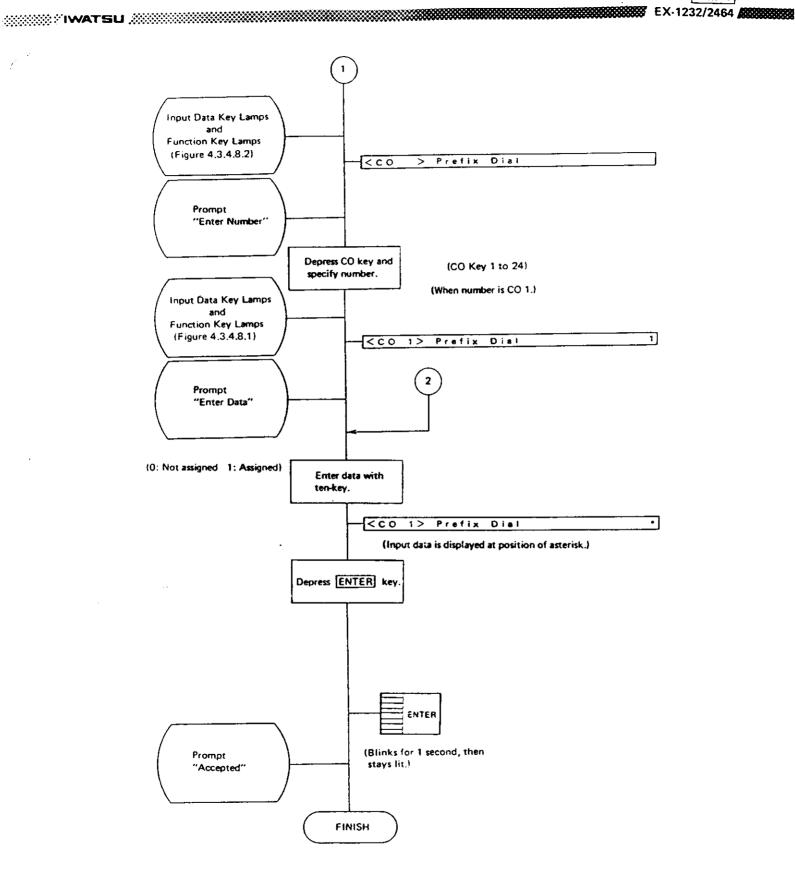
Figure 4.3.4.7.2

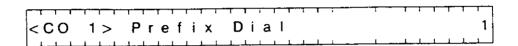
4.3.4.8 Prefix Dial (Item 8)

Feature: Set whether prefix dial is required

for CO outgoing







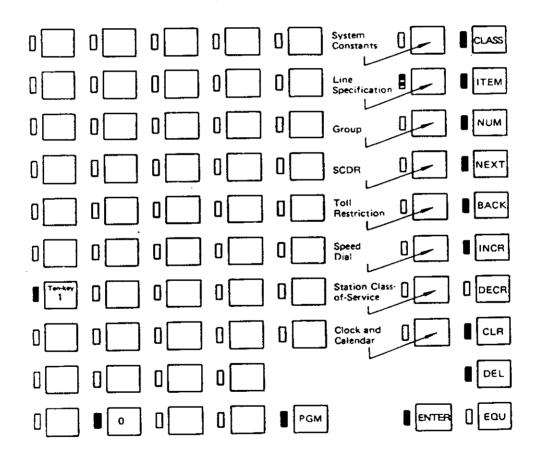
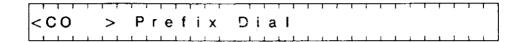


Figure 4.3.4.8.1



Key Lamp

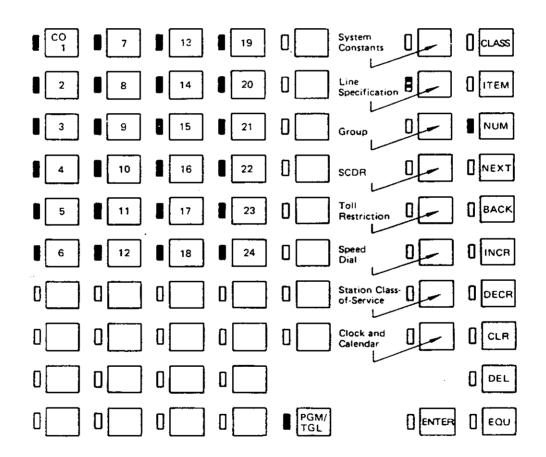
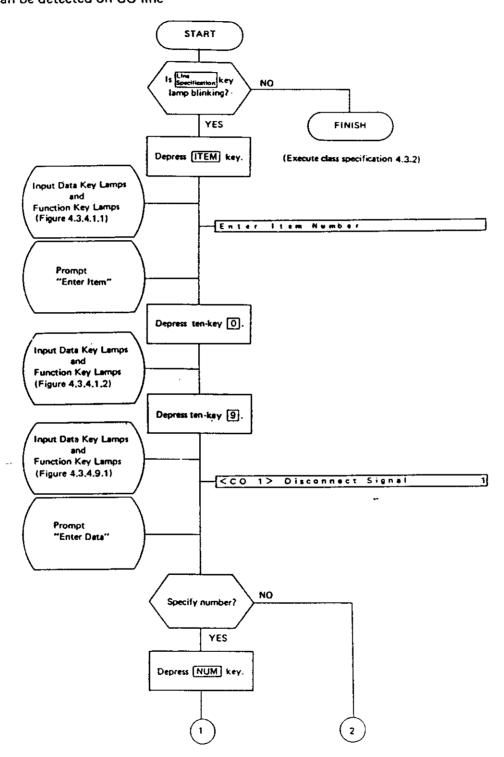
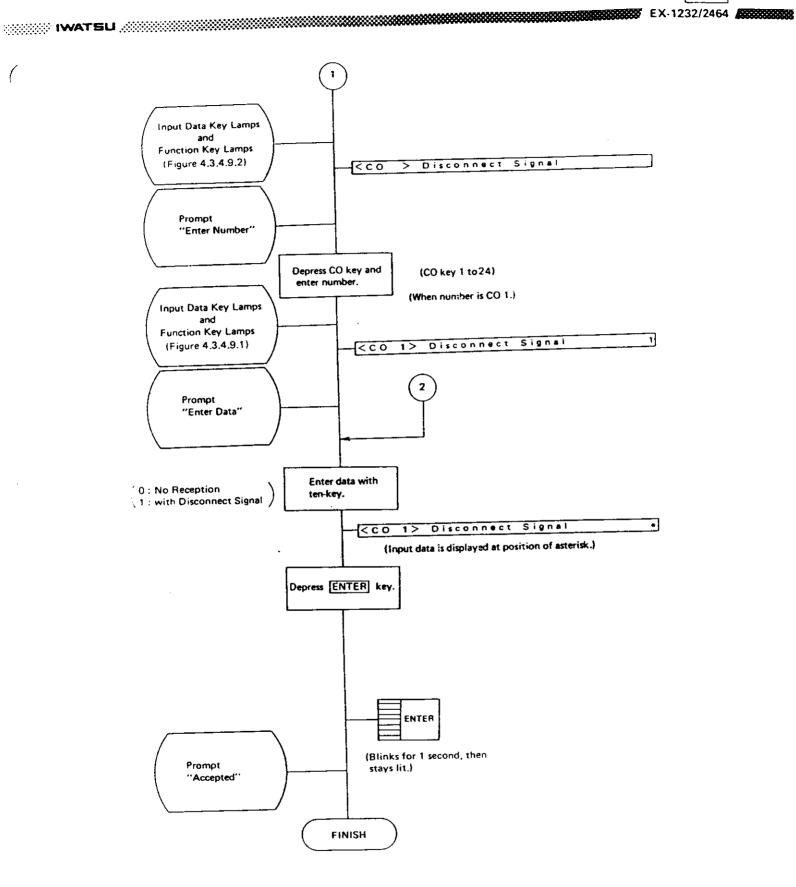


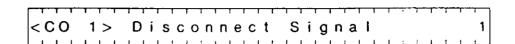
Figure 4.3.4.8.2

4.3.4.9 Disconnect Signal (Item 9)

Feature: Set whether the disconnect signal can be detected on CO line







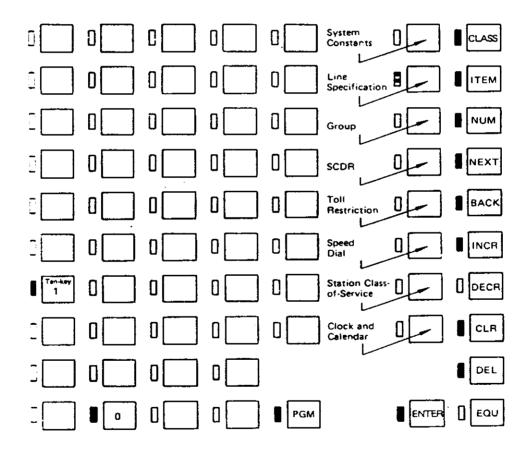


Figure 4.3.4.9.1



Key Lamp

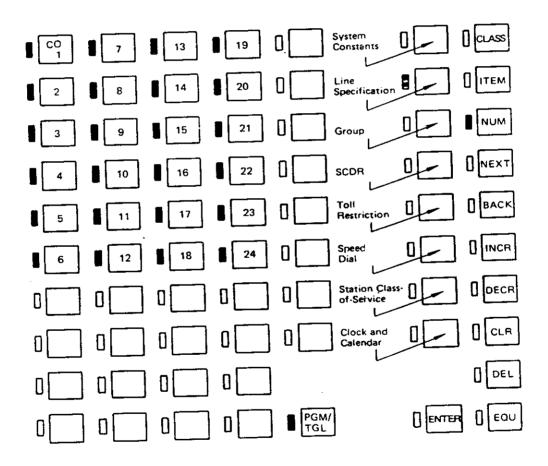
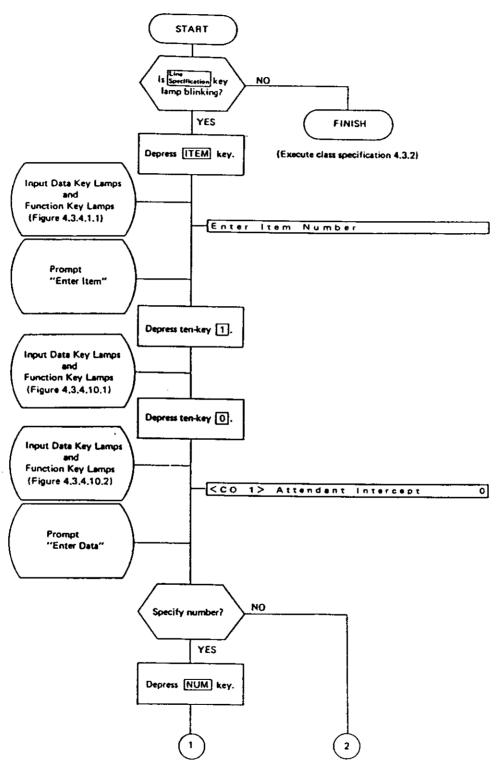
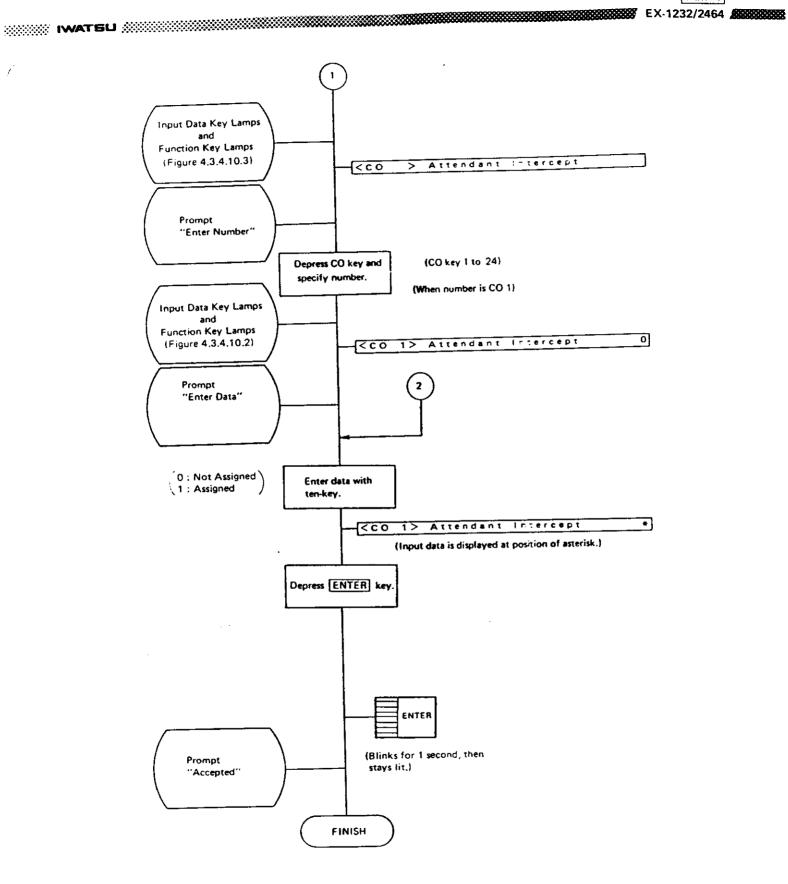


Figure 4.3.4.9.2

4.3.4.10 COL Attendant Intercept (Item 10)

Feature: Setting COL Attendant Intercept





Enter Item Number

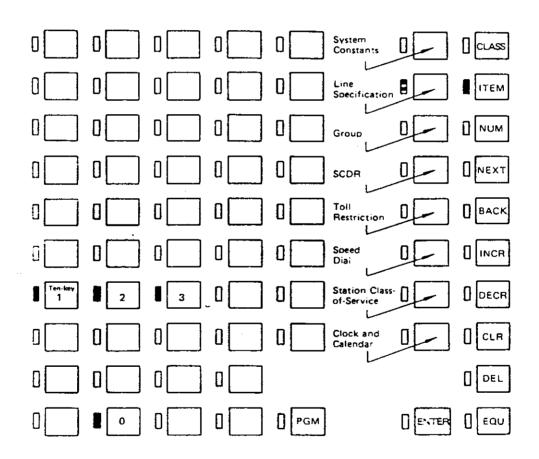
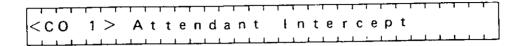


Figure 4.3.4.10.1



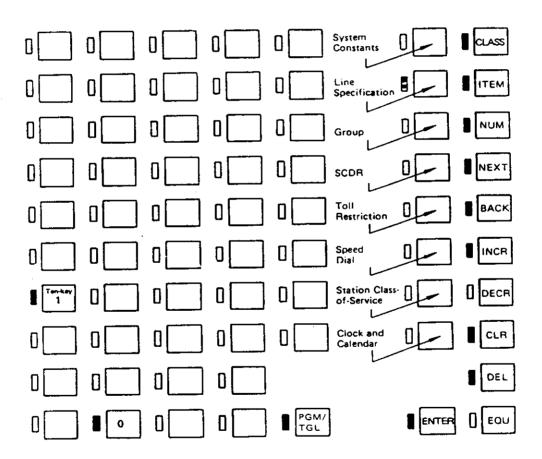


Figure 4.3.4.10.2

< c o Attendant Intercept

Key Lamp

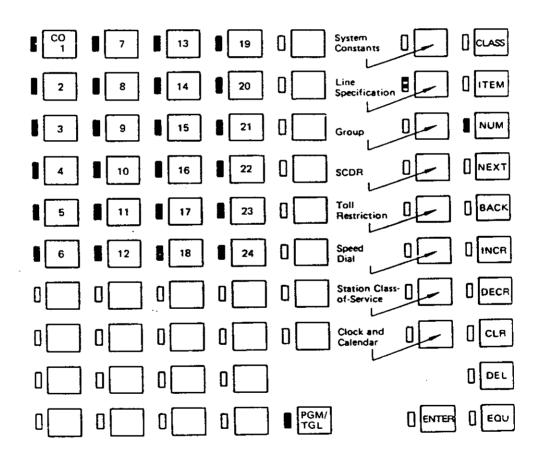
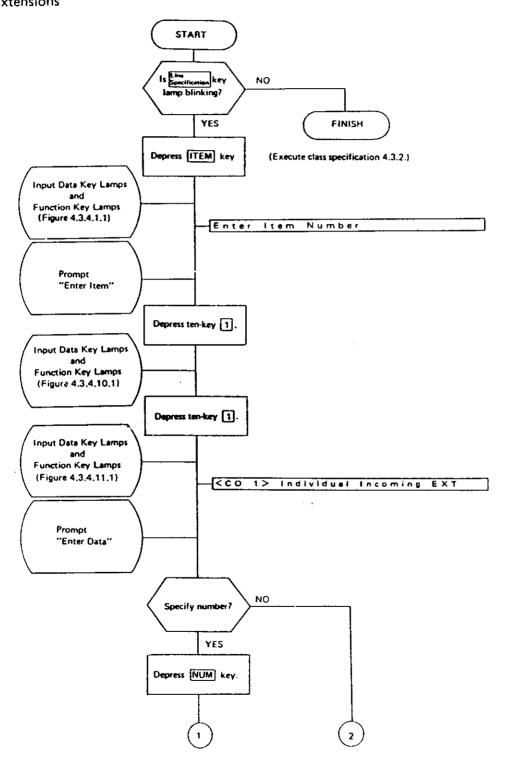
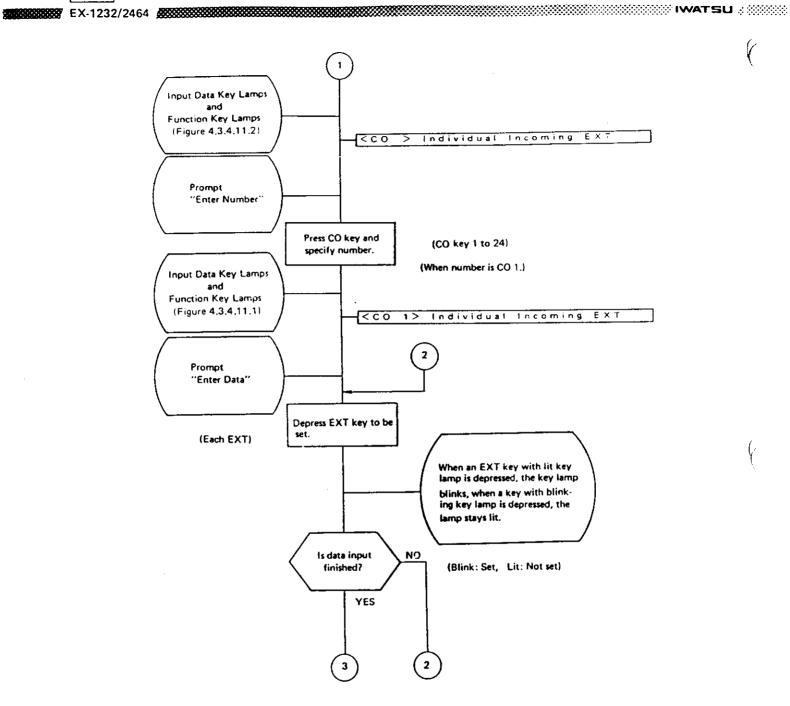


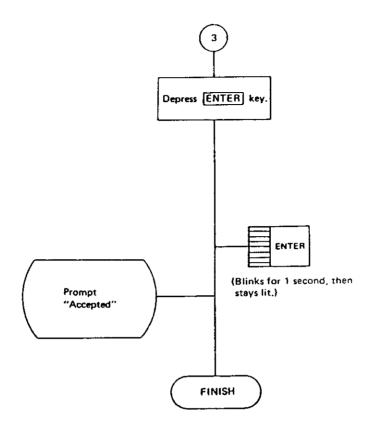
Figure 4.3.4.10.3

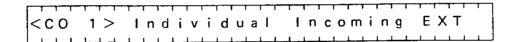
4.3.4.11 Individual Incoming Extensions (Item 11)

Feature: Setting Individual Incoming Extensions

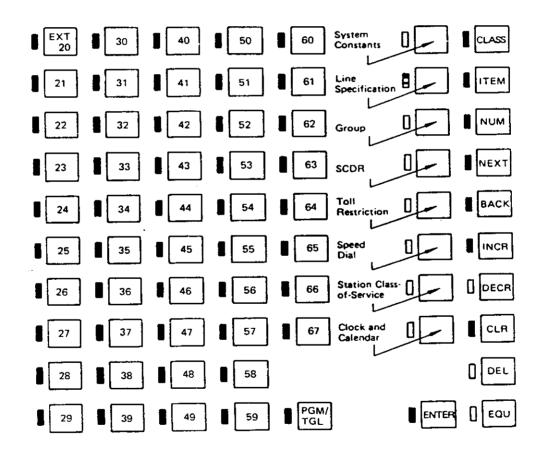






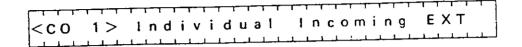


Key Lamp

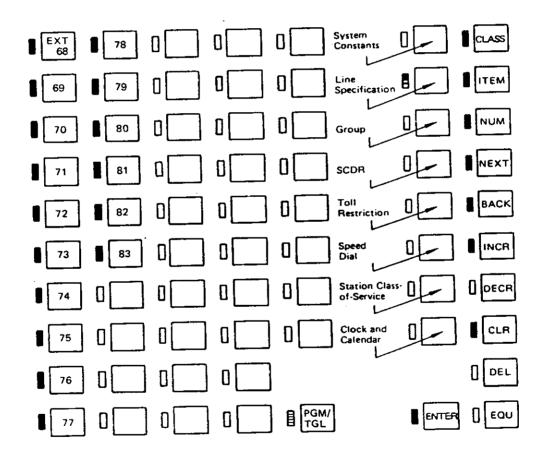


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.4.11.1.a



Key Lamp



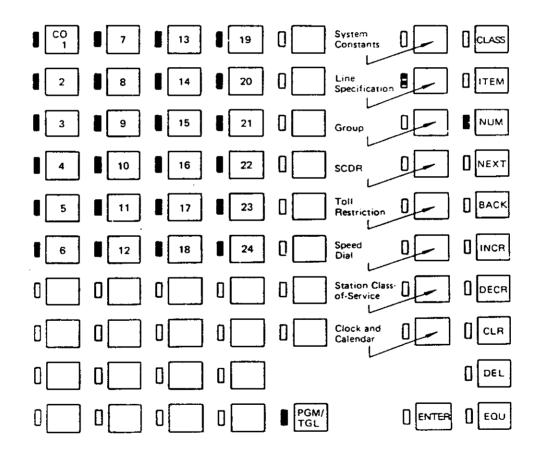
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.4.11.1.b

< C O Individual Incoming

Key Lamp

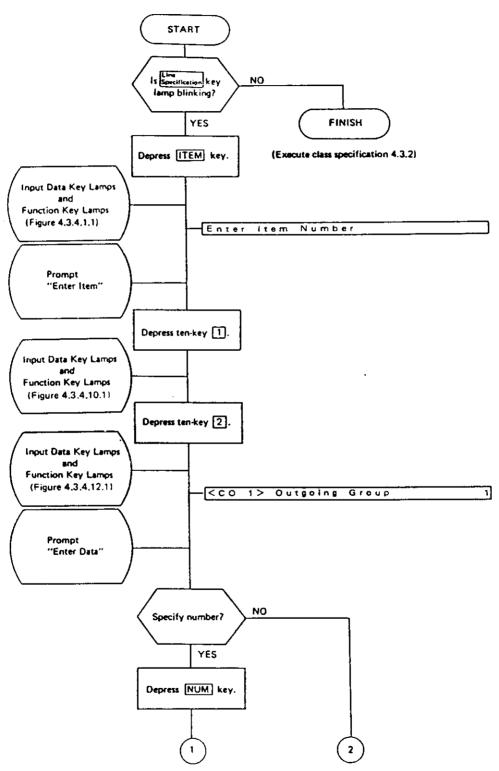


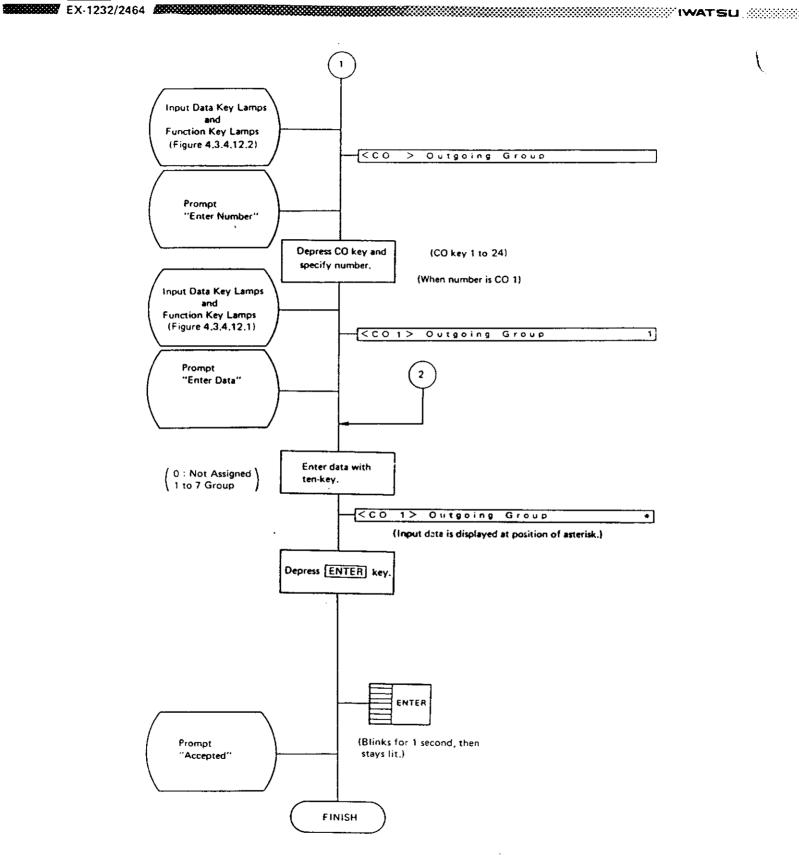
Note: Data is indicated on the key lamp assigned to CO key of input data keys.

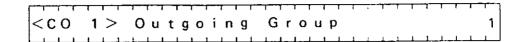
Figure 4.3.4.11.2

4.3.4.12 CO Outgoing Group (Item 12)

Feature: Setting CO outgoing group







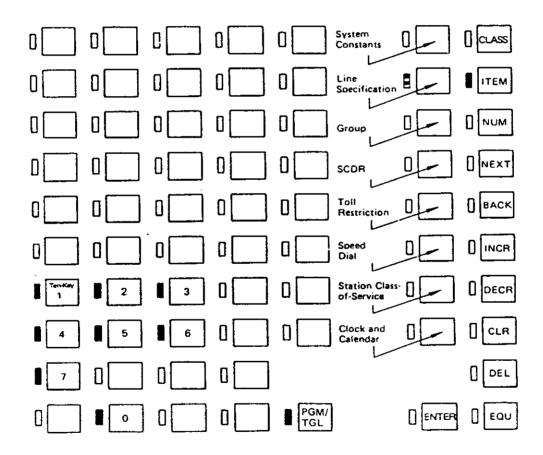
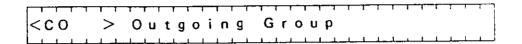
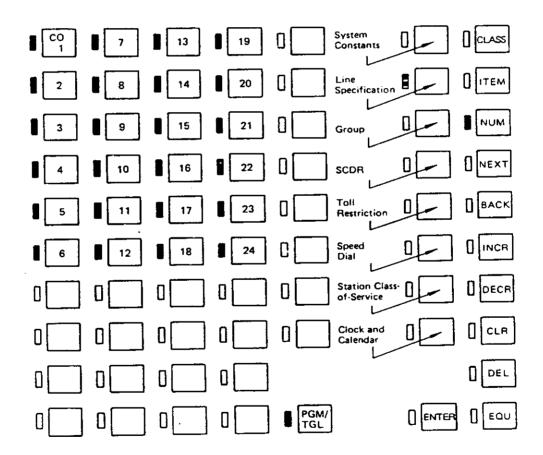


Figure 4.3.4.12.1



Key Lamp



Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.4.12.2

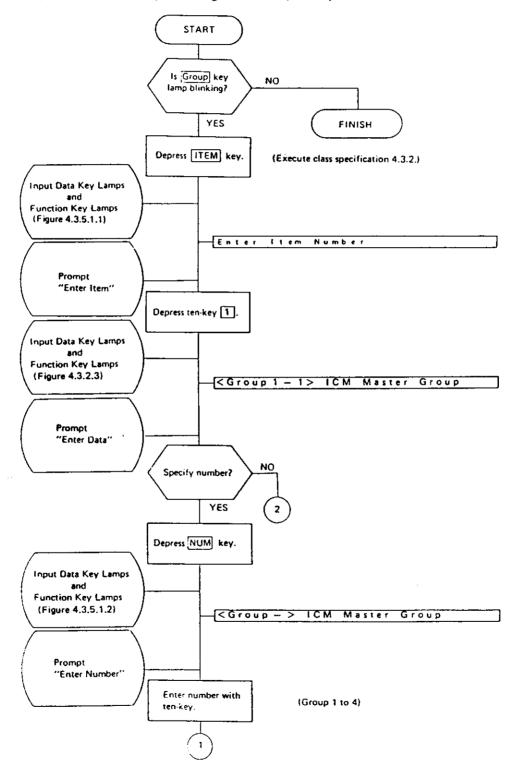
4.3.5 Group Programming

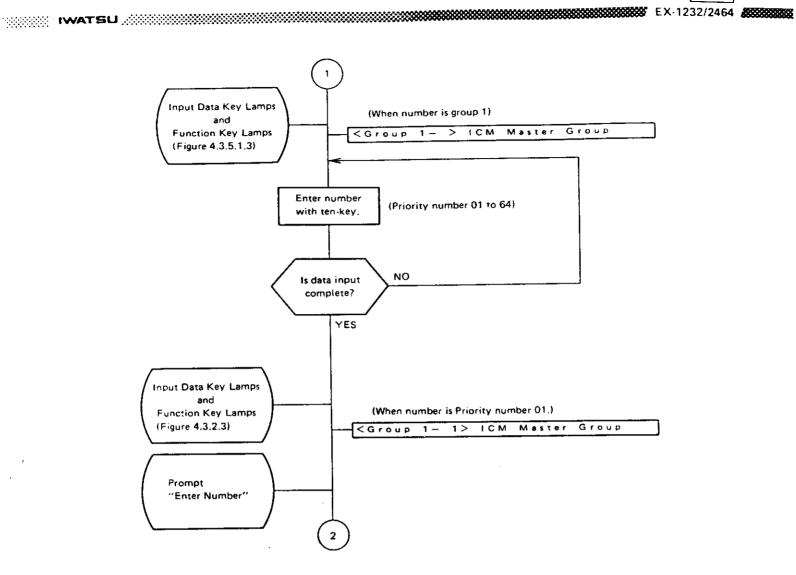
After specifying Line Specification Class with operation in Subsection 4.3.4, enter the following settings:

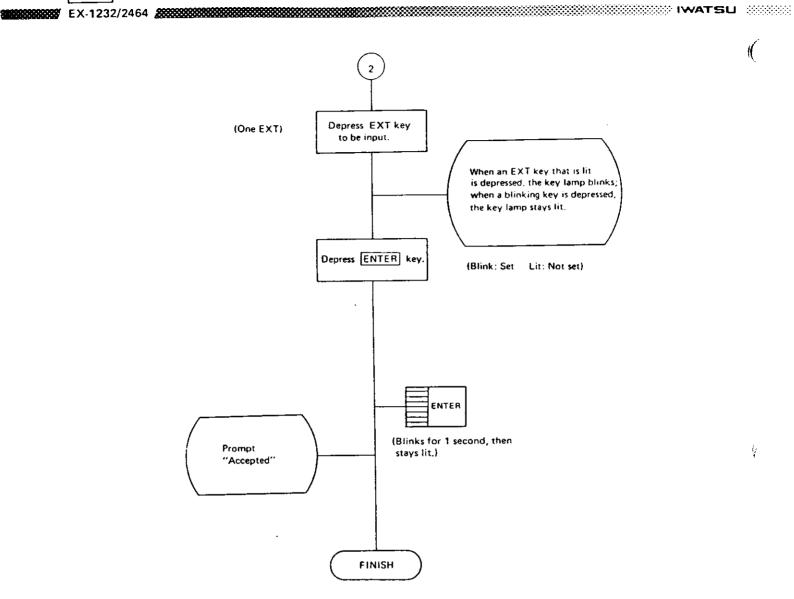
- Item 1) ICM Master Hunt Group
- Item 2) ICM Group Call
- Item 3) Pickup Group

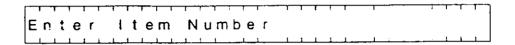
4.3.5.1 ICM Master Group (Item 1)

Feature: Setting ICM Master Group EXT together with priority









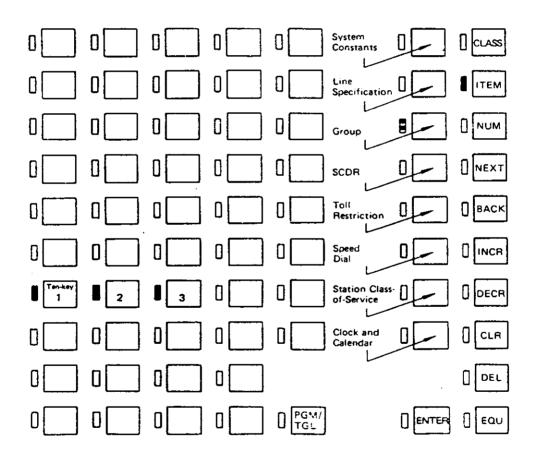


Figure 4.3.5.1.1

222222222

<Group - > ICM Master Group

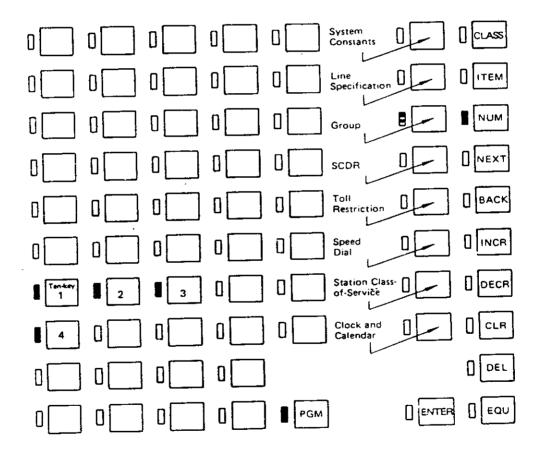
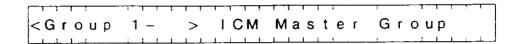


Figure 4.3.5.1.2



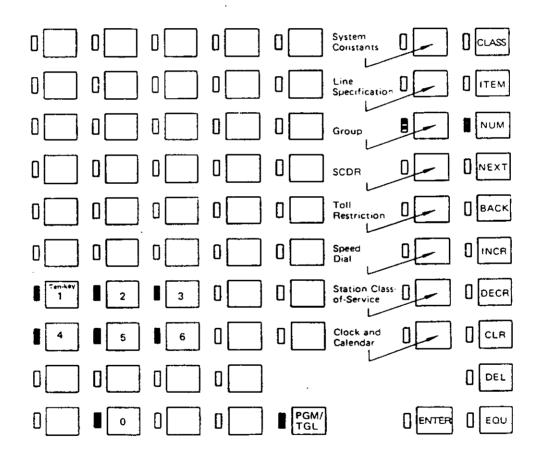
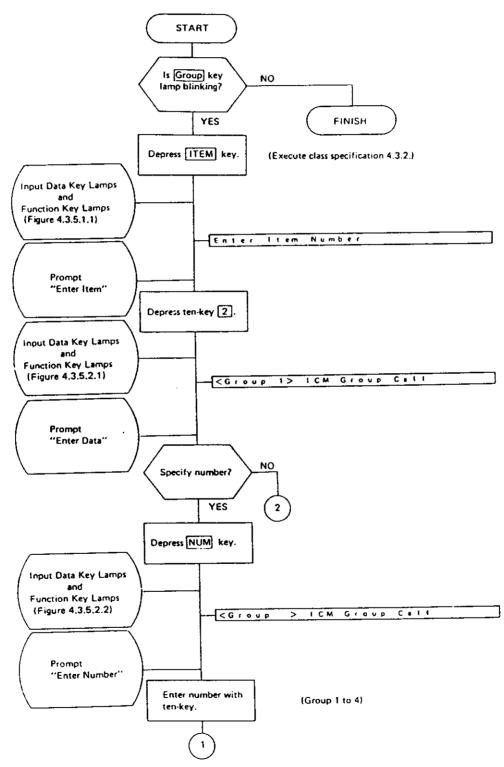
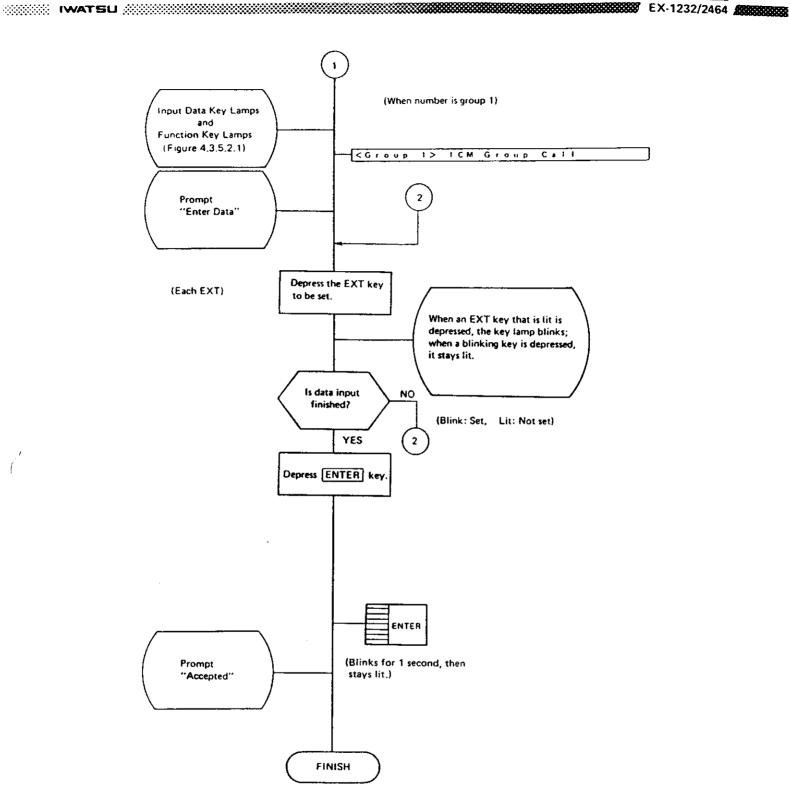


Figure 4.3.5.1.3

4.3.5.2 ICM Group Call (Item 2)

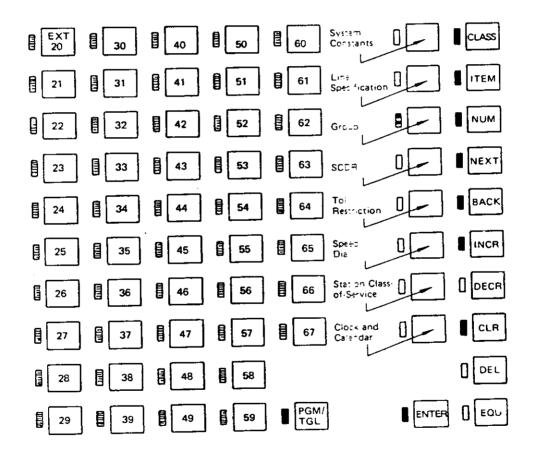
Feature: Set ICM Group Call group EXT







Key Lamp



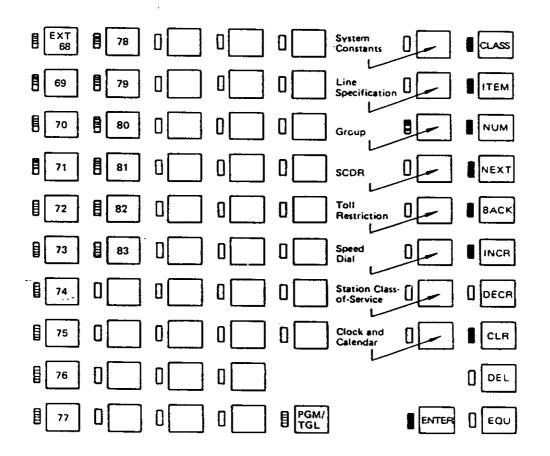
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.5.2.1.a

<Group 1> ICM Group Call

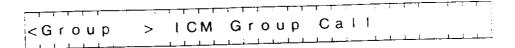
Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.5.2.1.b



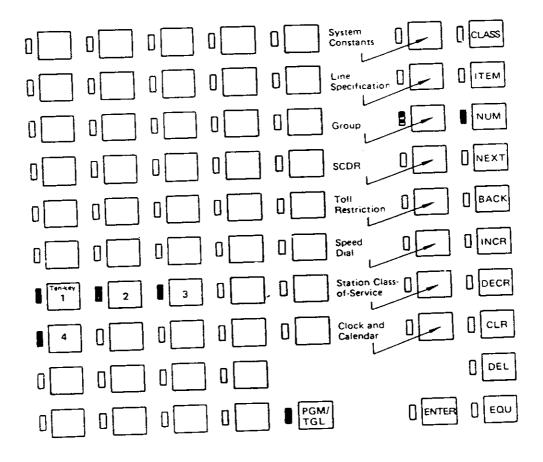
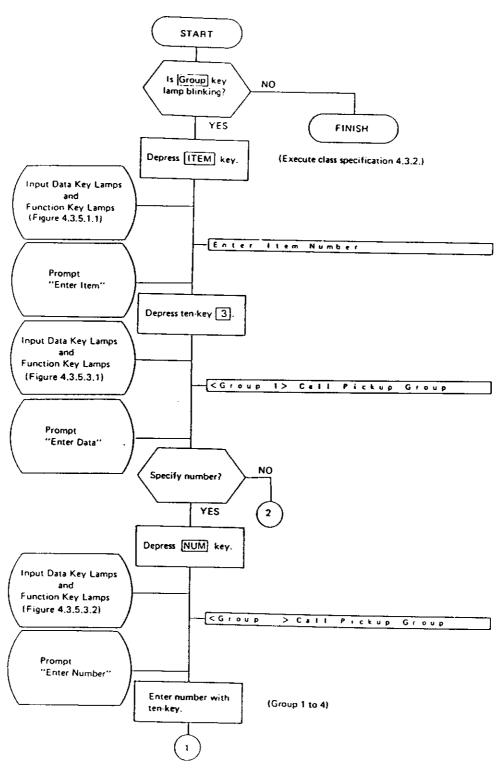
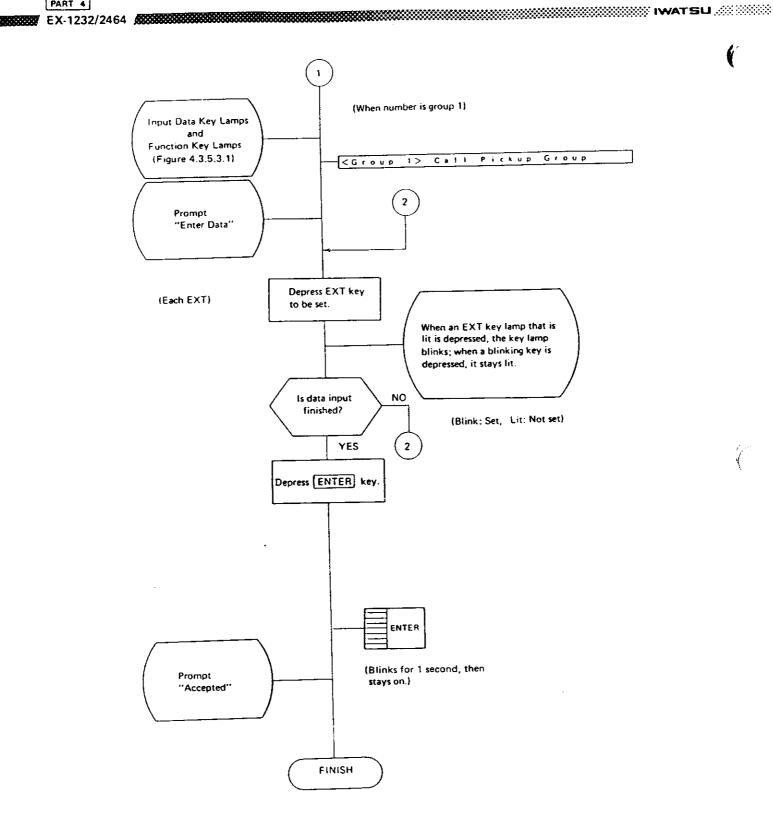


Figure 4.3.5.2.2

4.3.5.3 Call Pickup Group (Item 3)

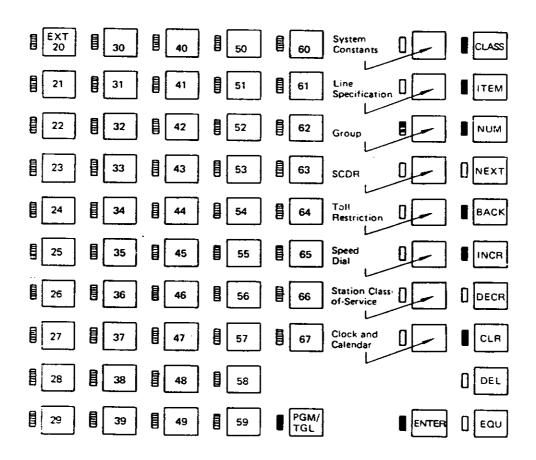
Feature: Setting Pickup Group EXT





< Group 1 > Call Pickup Group

Key Lamp

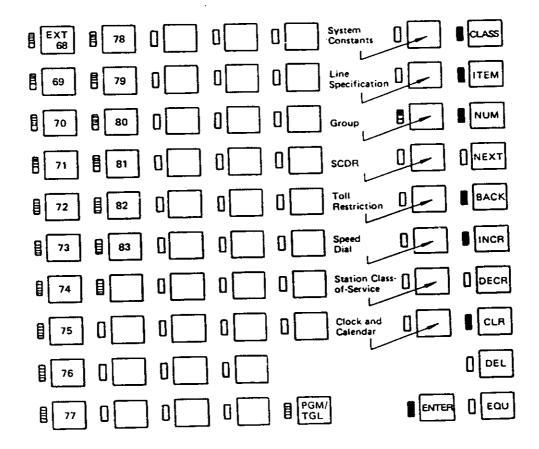


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.5.3.1.a

Pickup Group Call 1 > <Group

Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.5.3.1.b



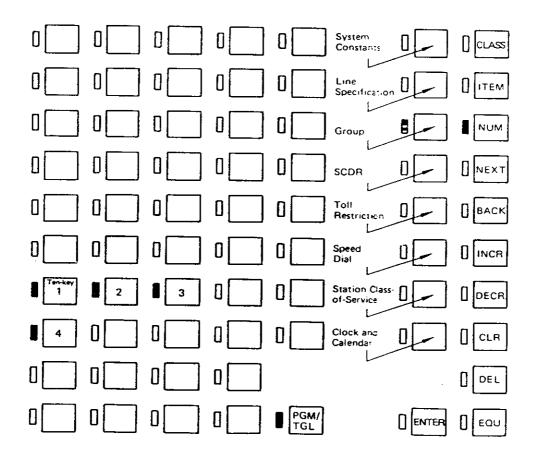


Figure 4.3.5.3.2

EX-1232/2461 (IWATSU

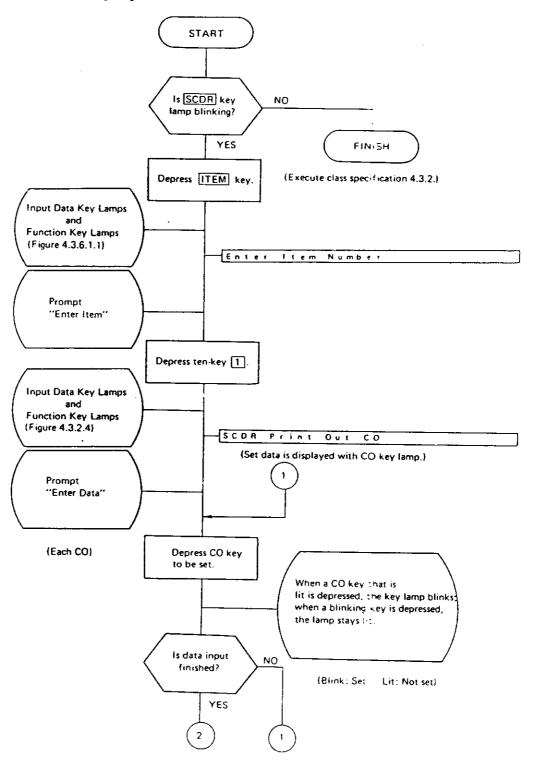
4.3.6 SCDR Programming

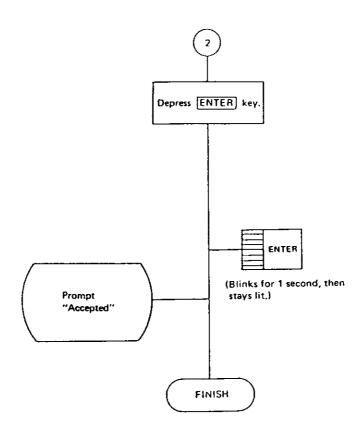
After specifying SCDR Data Class with operation in Subsection 4.3.2, the following settings can be entered:

- Item 1) Print Out CO
- Item 2) Print Out Extensions
- Item 3) Print Out Minimum Time
- Item 4) Print Out Incoming Calls
- Item 5) Print Out Calls With Account Code
- Item 6) Print Out Toll Calls

4.3.6.1 Print Out CO (Item 1)

Feature: Setting CO to print outgoing calls





Enter Number Item

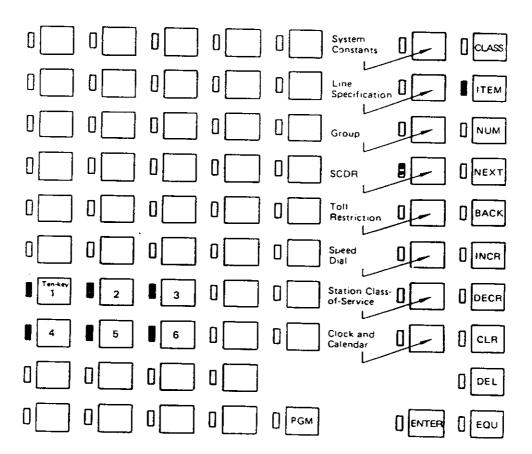
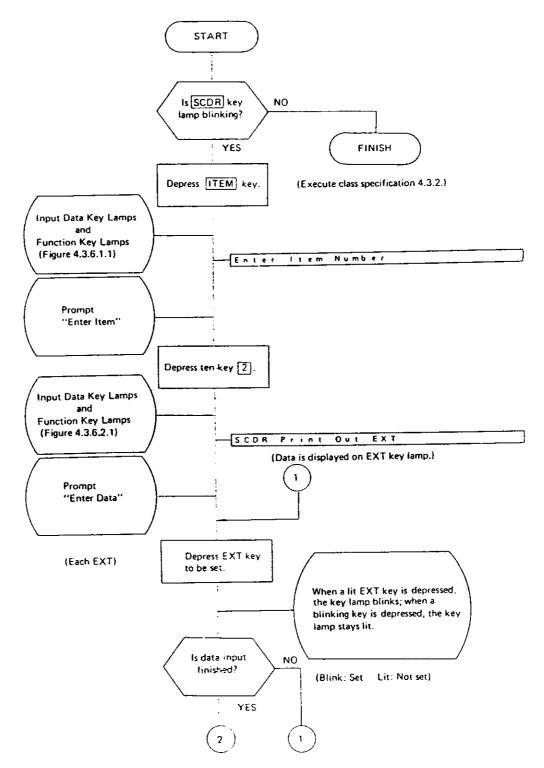
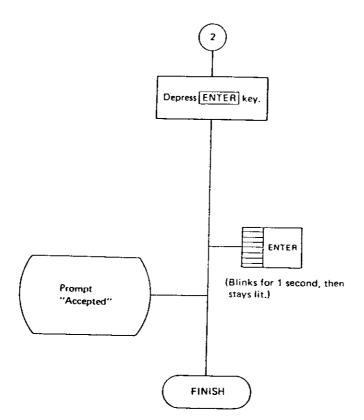


Figure 4.3.6.1.1

4.3.6.2 Print Out Extensions (Item 2)

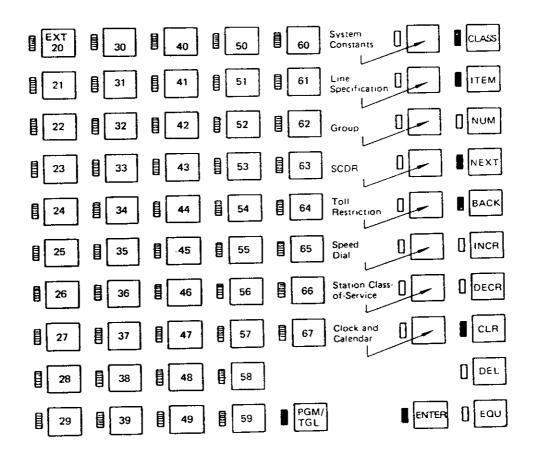
Feature: Setting EXT for which outgoing calls are printed





SCDR Print Out EXT

Key Lamp



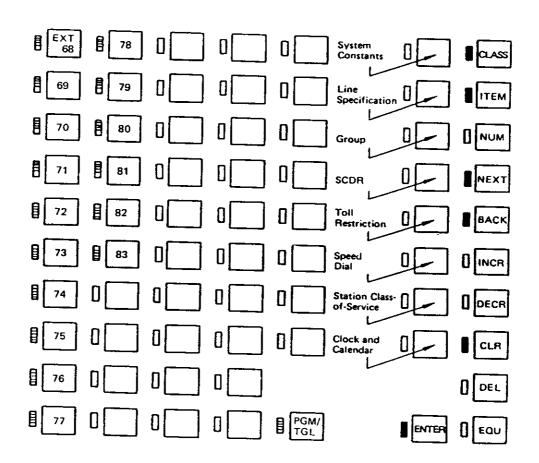
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.6.2.1.a

SCDR Print Out EXT

Key Lamp

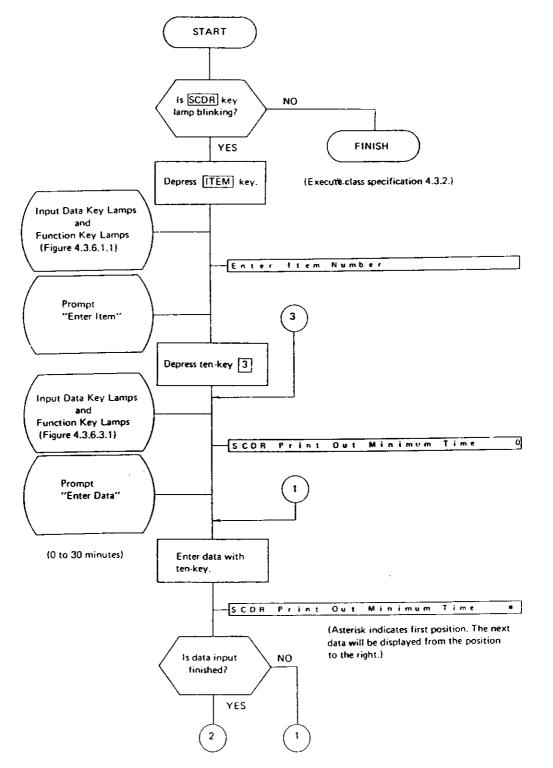


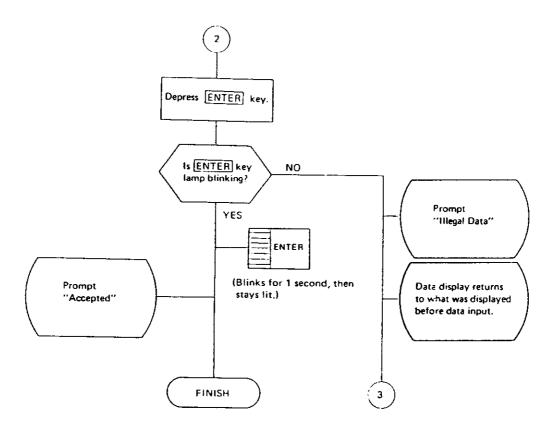
Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.6.2.1.b

4.3.6.3 Print Out Minimum Time (Item 3)

Feature: Setting minimum of call time to be printed





EX-1232/2464

SCDR Print Out Minimum Time 0

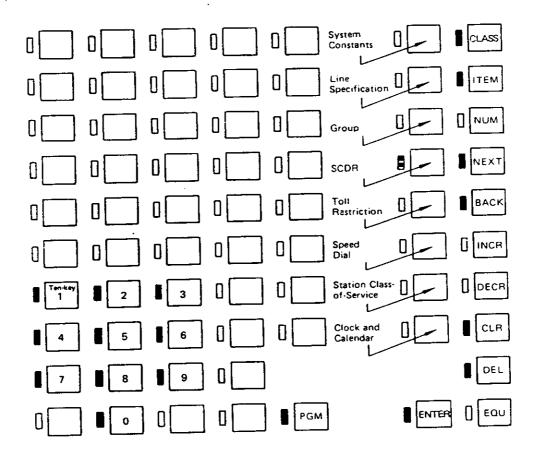
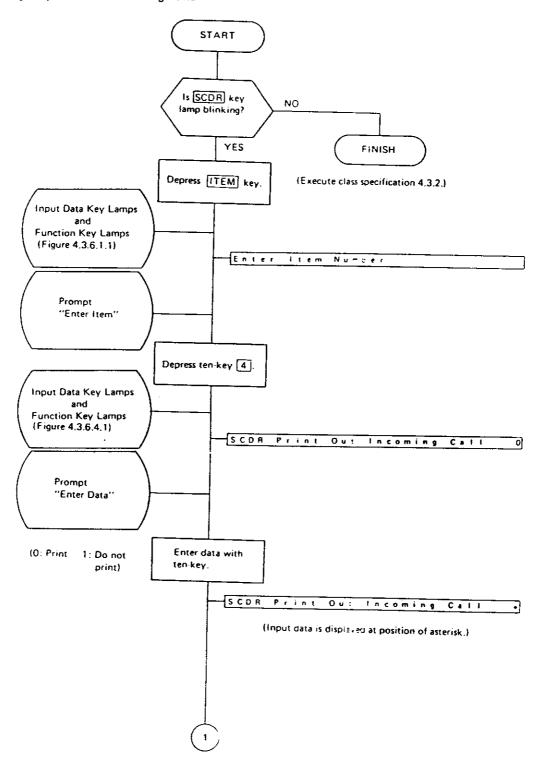
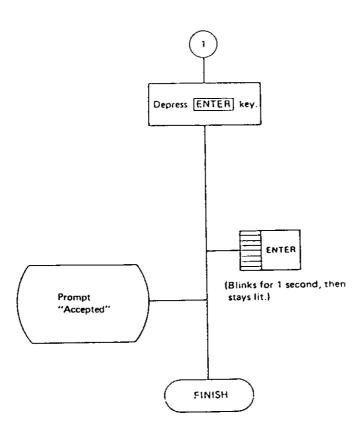


Figure 4.3.6.3.1

Feature: Setting to print out incoming calls





SCDR Print Out Incoming Call

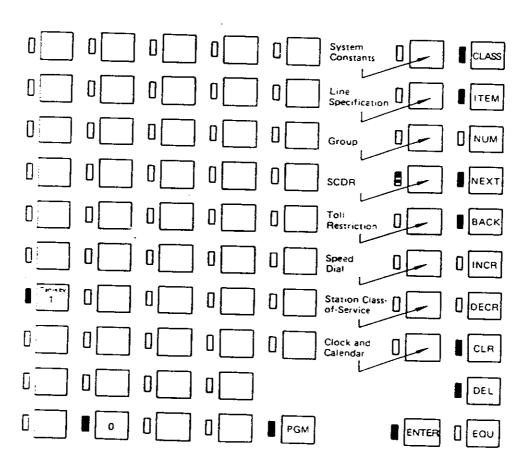
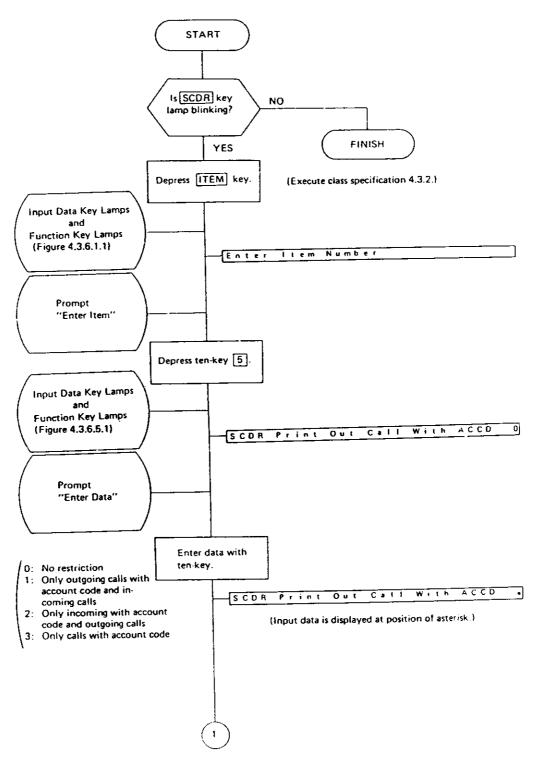
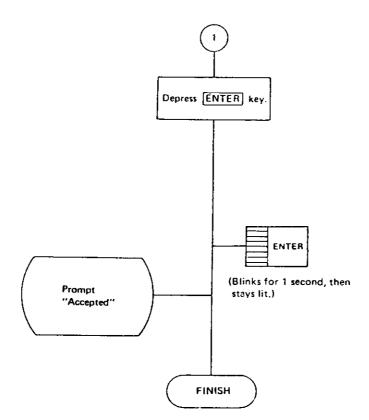


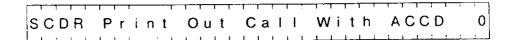
Figure 4.3.6.4.1

Print Out Calls With Account Code (Item 5) 4.3.6.5

Setting to print out calls with account code Feature:







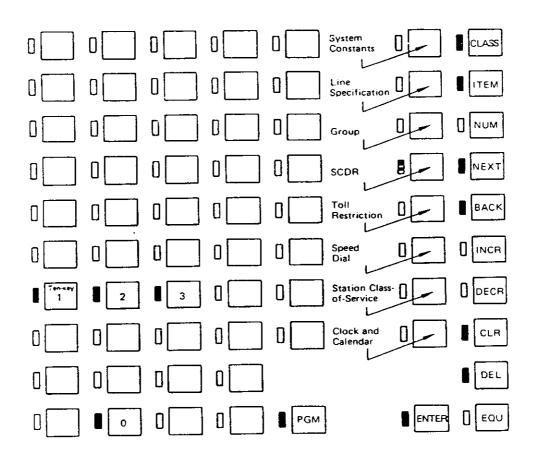
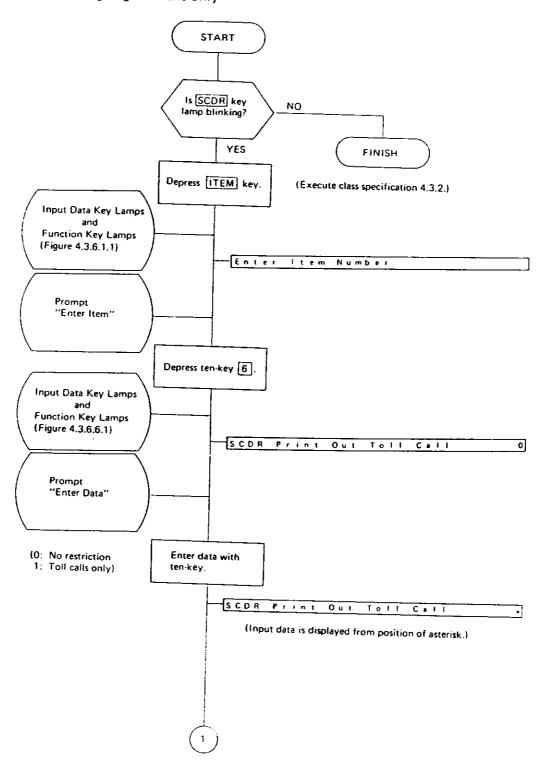
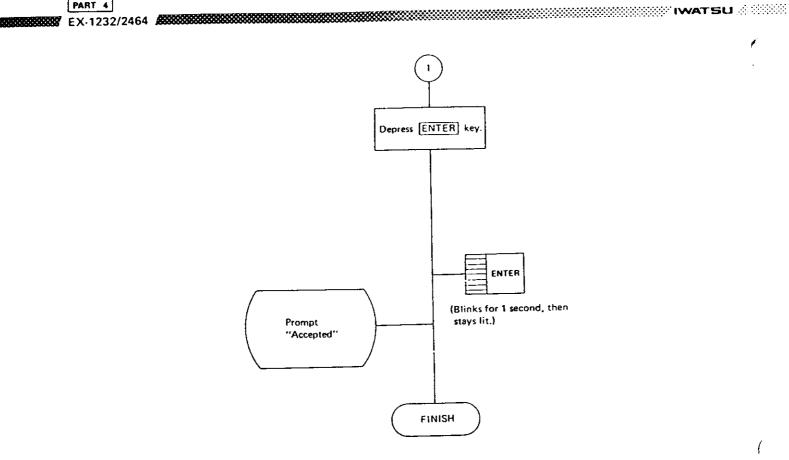


Figure 4.3.6.5.1

4.3.6.6 Print Out Toll Calls (Item 6)

Feature: Setting to print outgoing toll calls only







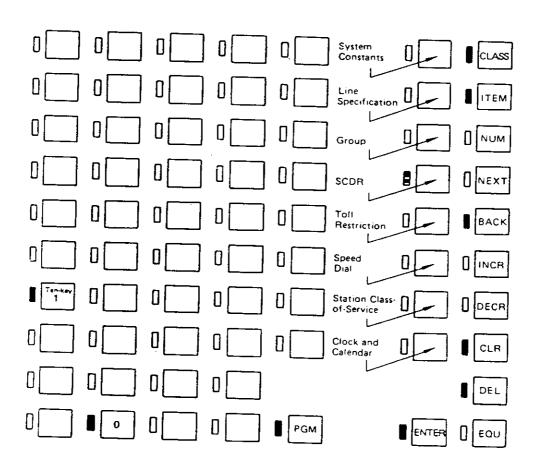


Figure 4.3.6.6.1

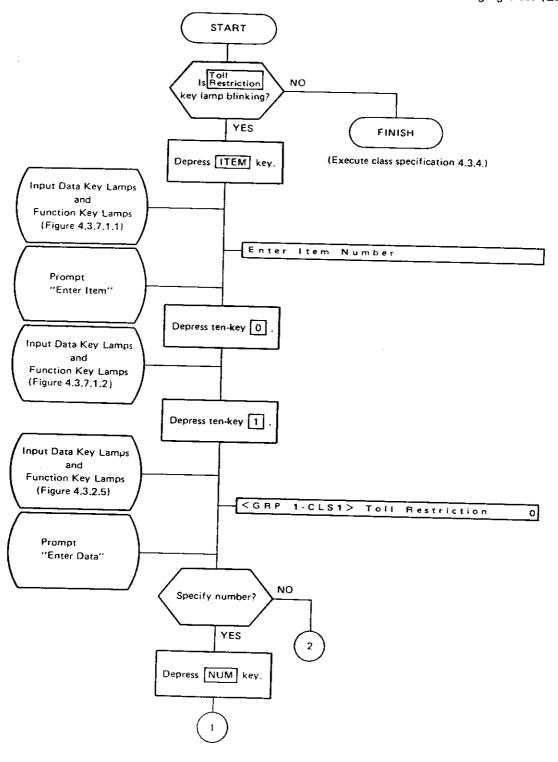
Programming Toll Restriction 4,3.7

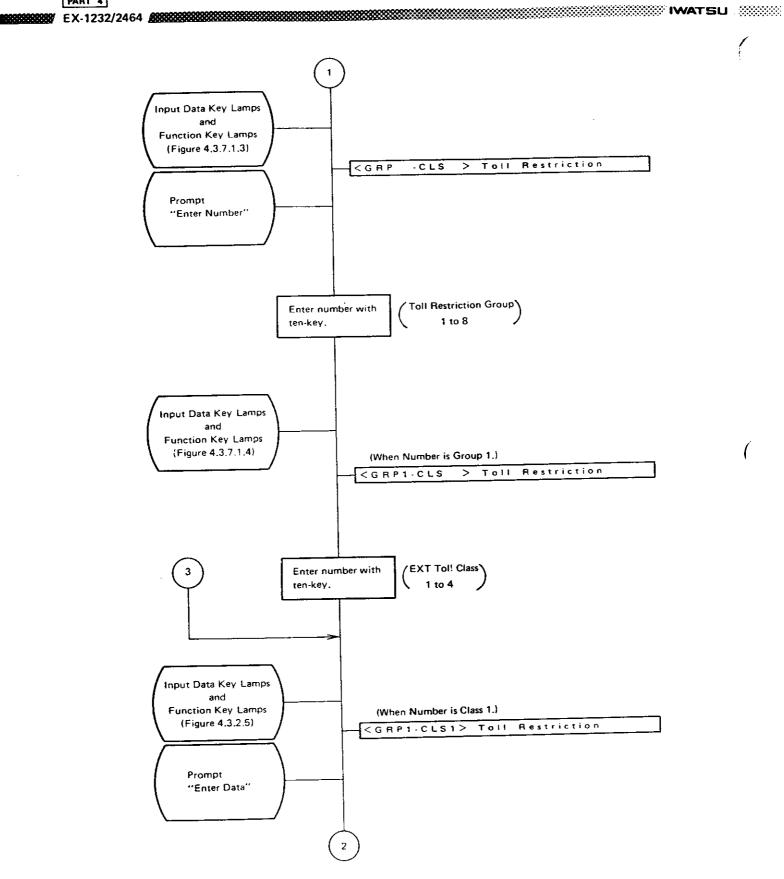
After Line Specification setting is completed with the operation in Subsection 4.3.4, the following settings can be entered:

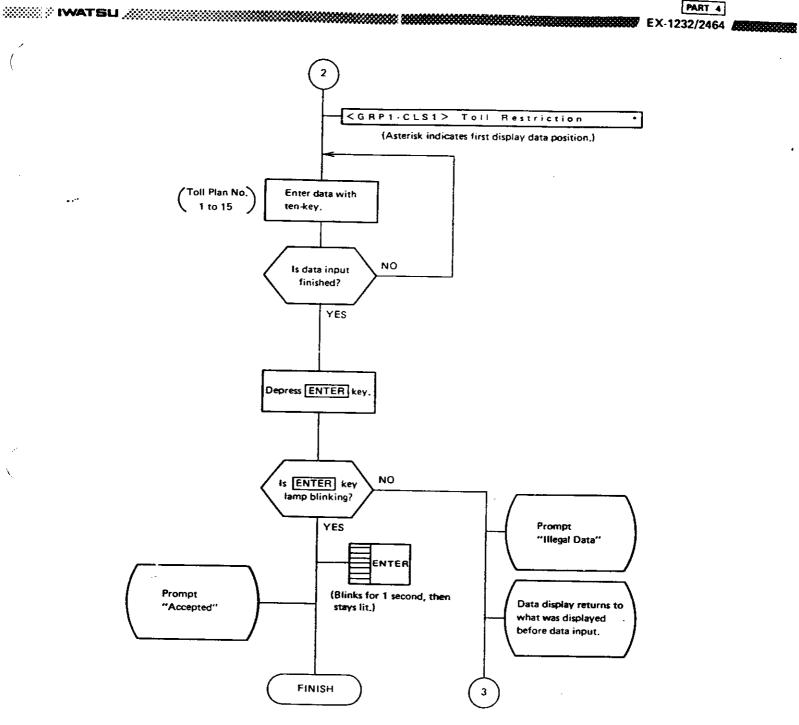
- Toll Plan No. Item 1)
- Toll Plan Table Item 2)
- Dial Table Item 3)
- E&M Area Code Table Item 4)
- **E&M Office Code Table** Item 5)
- Area Code Table Item 6)
- Office Code Table Item 7)
- Override Office Code Item 8)
- Time Schedule Item 9)
- Route Table Item 10)
- Delete Index Table Item 11)
- Delete Data Table Item 12)
- Additional Index Table Item 13)
- Additional Data Area Table Item 14)
- Additional Data Office Table Item 15)
- Additional Table Item 16)
- Specific Code Table Item 17)
- Equal Access Code Table Item 18)
- Equal Access Pin Code Table item 19)
- Equal Access Pin Code Timing Table Item 20)
- **Equal Access Prefix Information** Item 21)
- **Equal Access Toll Group** Item 22)

4.3.7.1 Toll Plan No. (Item 1)

Feature: Setting restriction plan number according to toll group (CO) and toll outging class (EXT).







((

Display

Number Enter Item

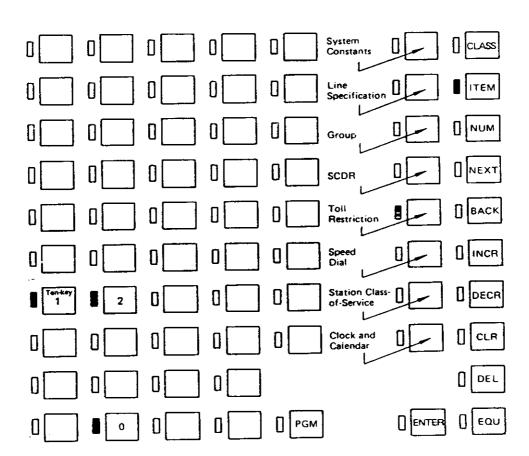
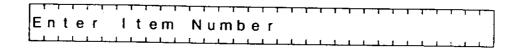


Figure 4.3.7.1.1



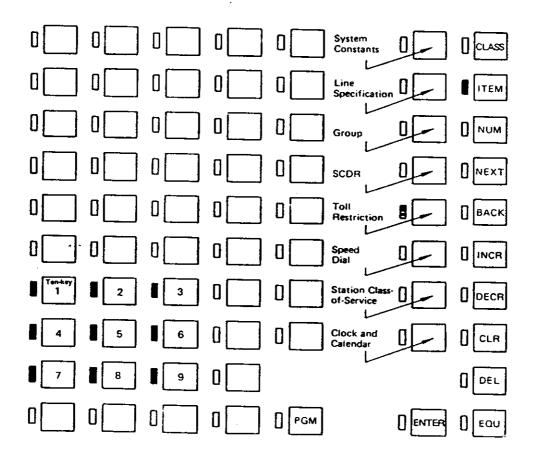


Figure 4.3.7.1.2

<GRP -CLS > Toll Restriction

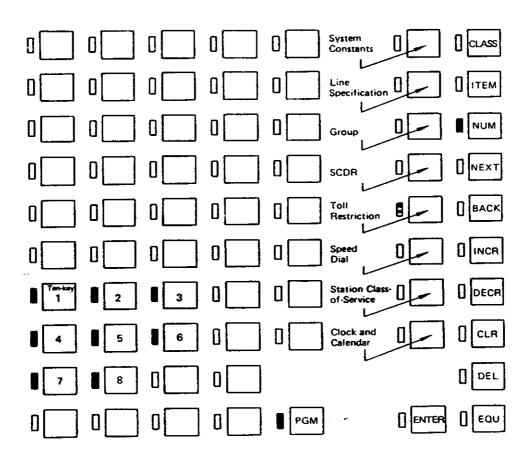


Figure 4.3.7.1.3



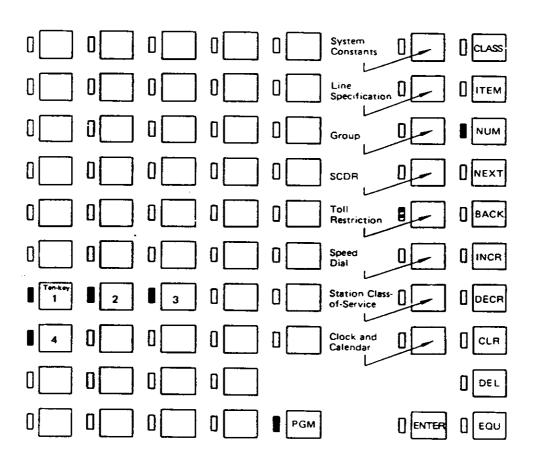
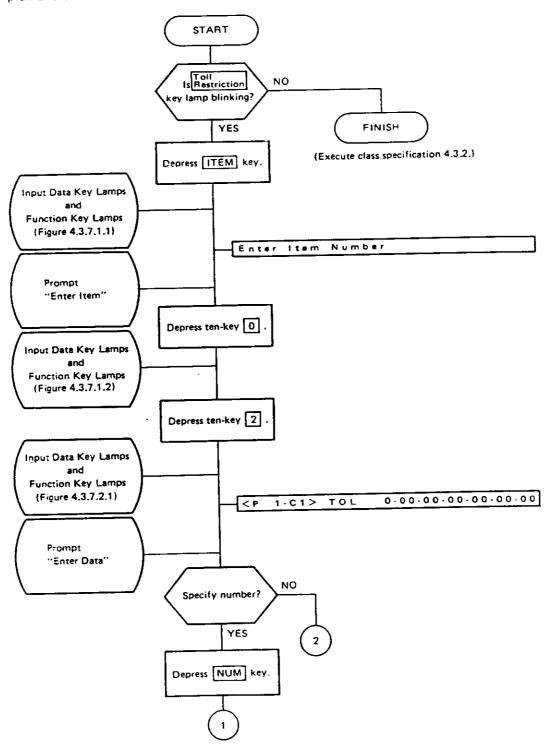
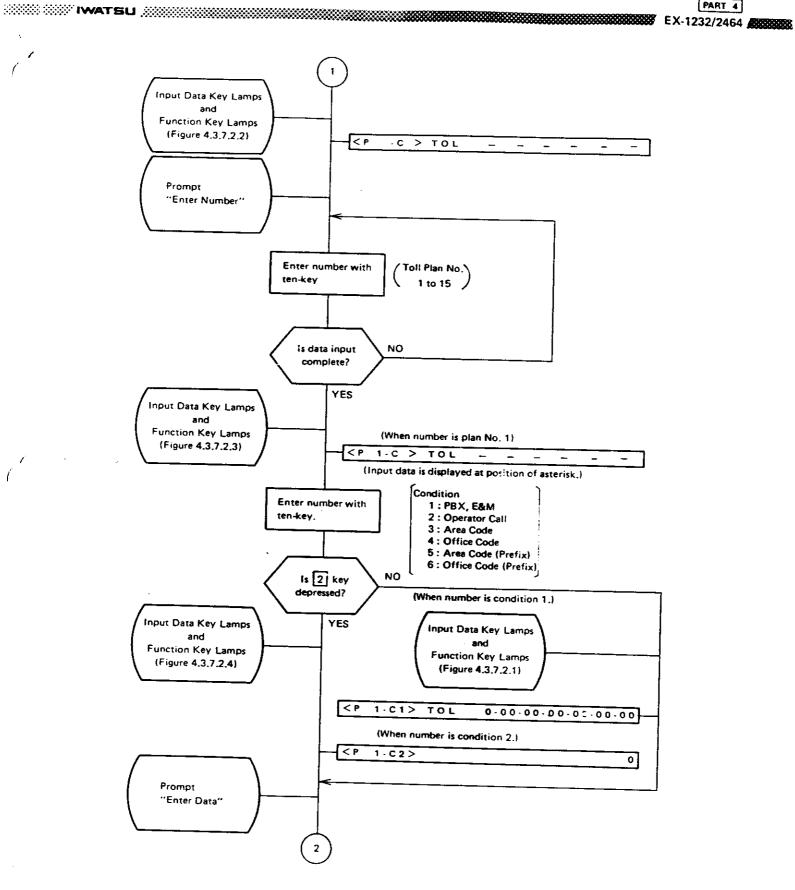


Figure 4.3.7.1.4

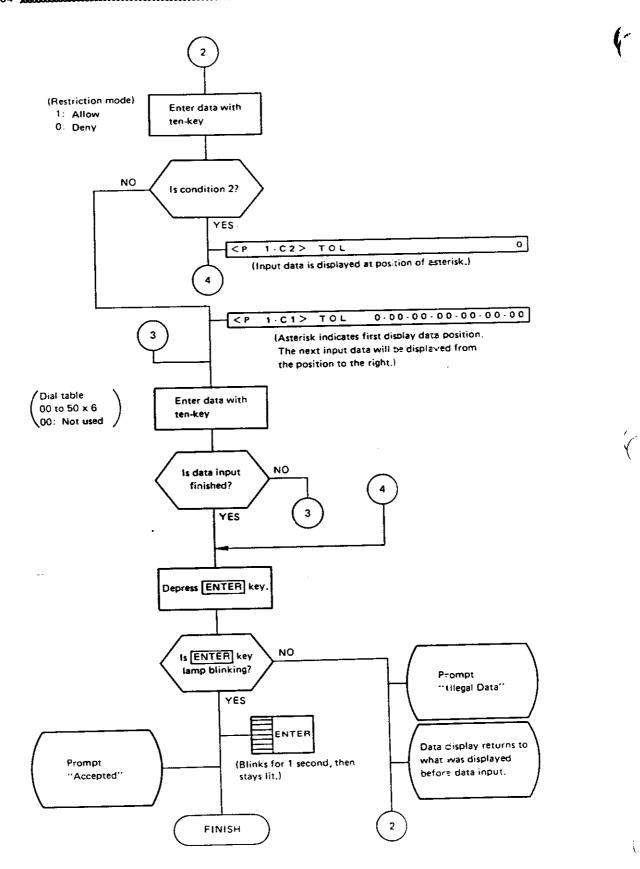
Toll Plan Table (Item 2) 4.3.7.2

Setting restriction mode and exception table number according to restriction Feature: plan and dial condition

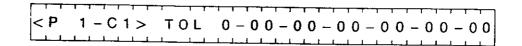




PART 4 ISSUE 2, JULY 86



PART 4 ISSUE 2, OCTOBER &



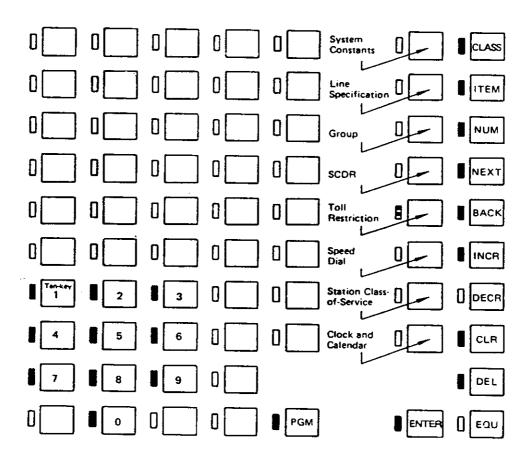


Figure 4.3.7.2.1

TOL - C < P

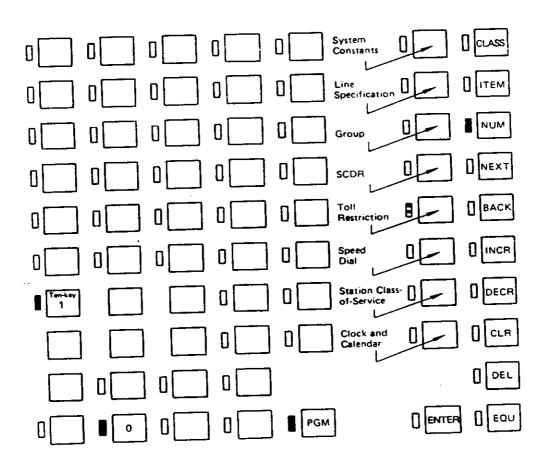


Figure 4.3.7.2.2



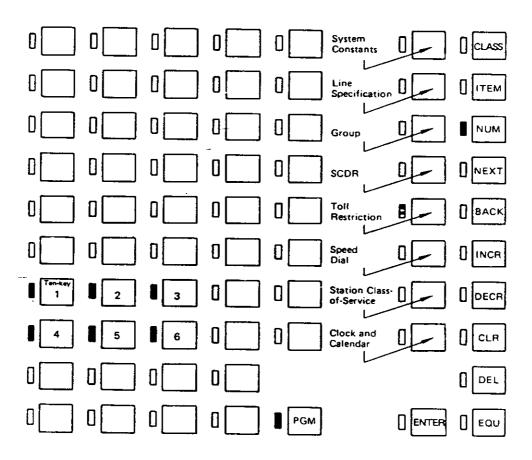


Figure 4.3.7.2.3

Figure 4.3.7.2.4

0

PGM

0

Clock and Calendar CLR

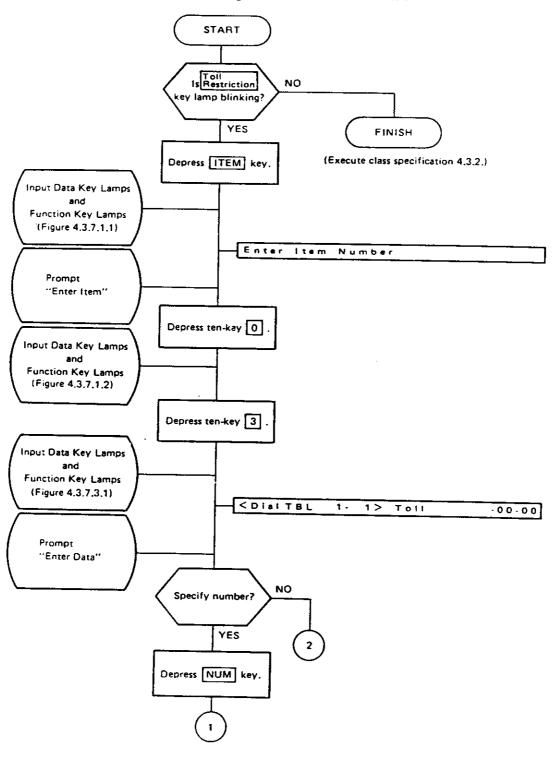
DEL

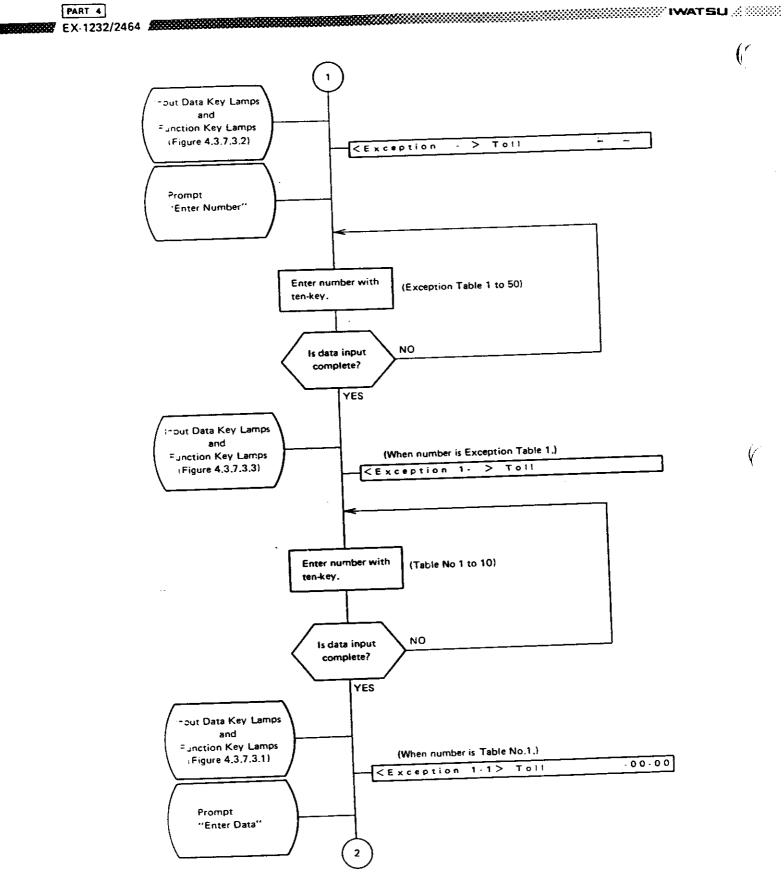
EQU

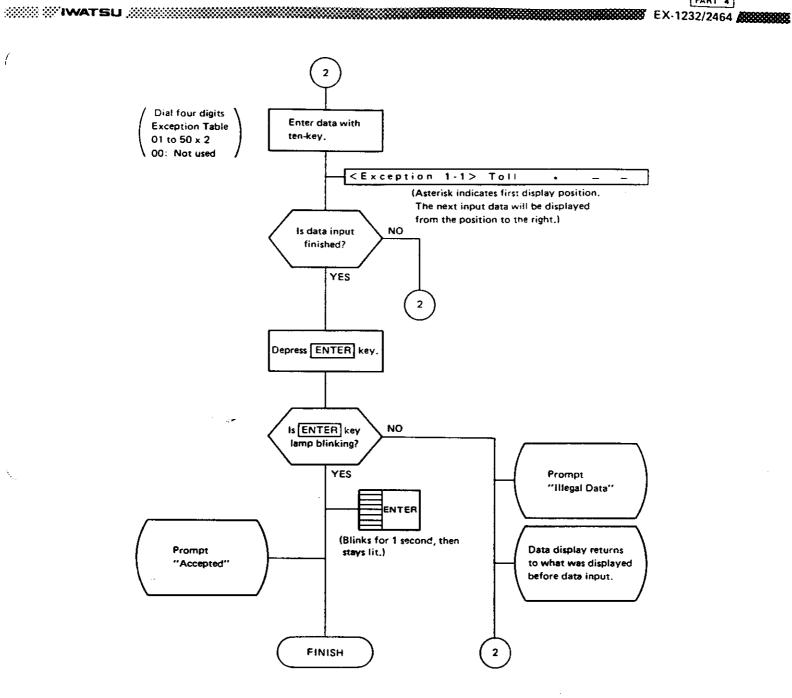
ENTER

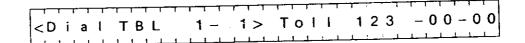
4.3.7.3 Dial Table (Item 3)

Feature: Setting content (dial and continuing table number) of Dial table









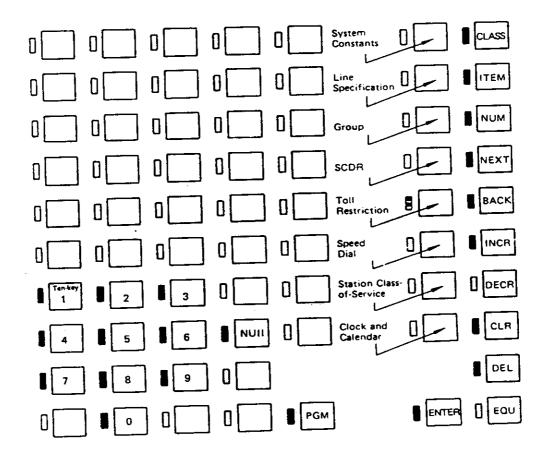
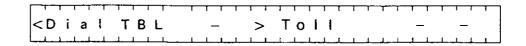


Figure 4.3.7.3.1



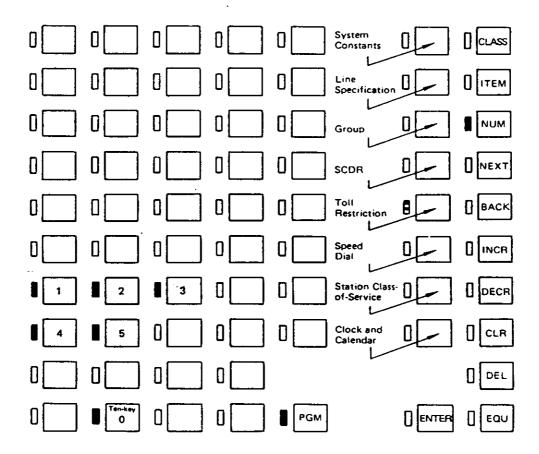


Figure 4.3.7.3.2

<Dial TBL 1- > Toil - -

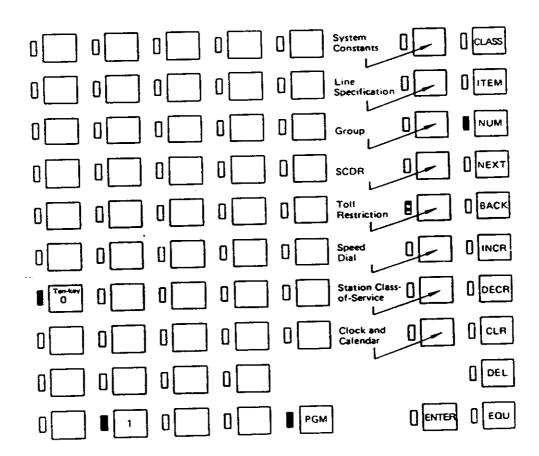
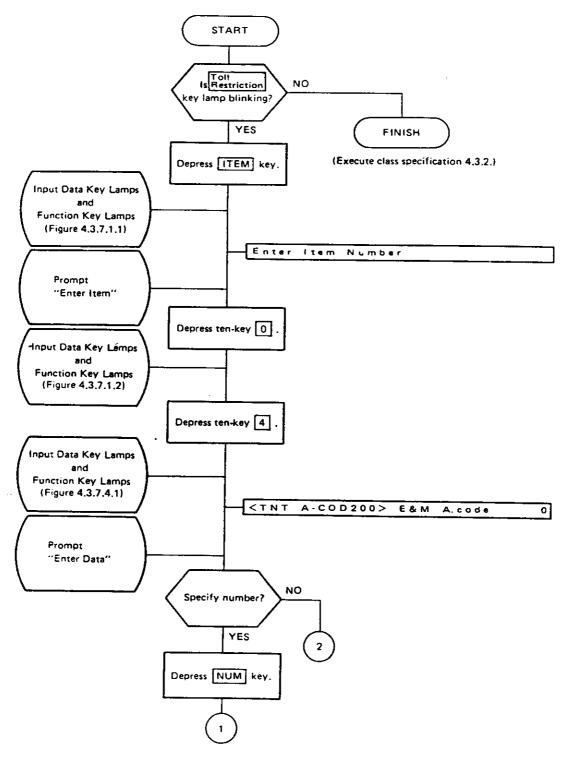
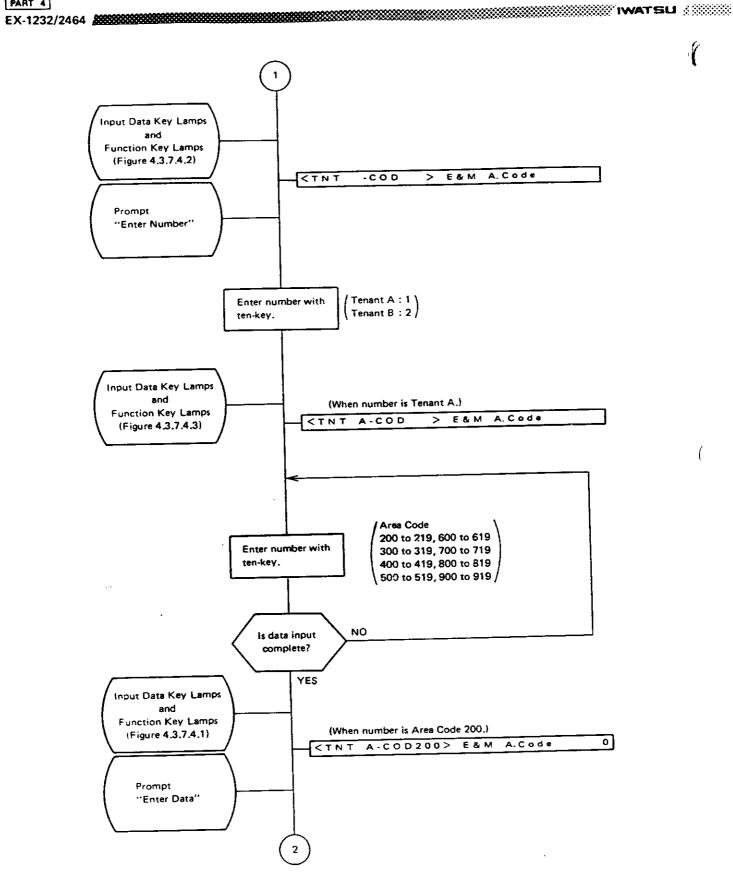


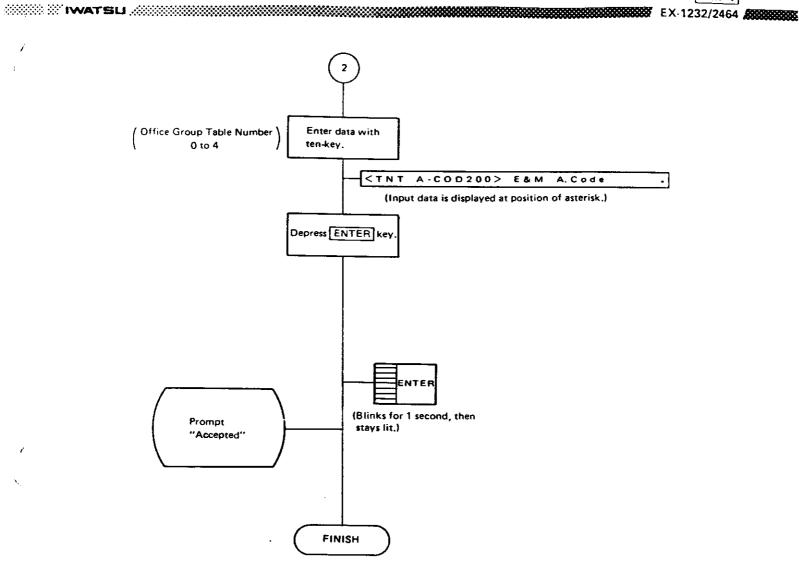
Figure 4.3.7.3.3

4.3.7.4 E&M Area Code Table (Item 4)

Feature: Office Group Table No. according to Tenant A/B and Area Code









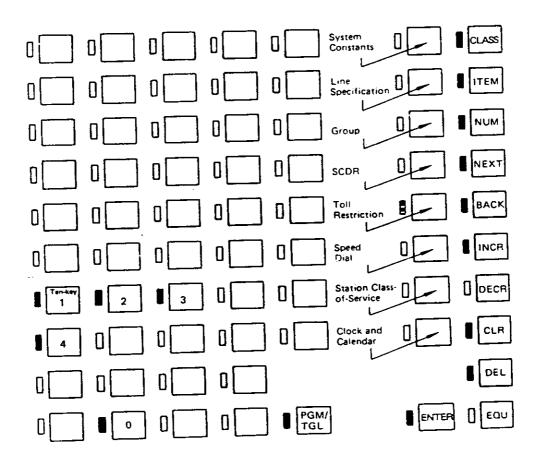
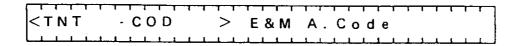


Figure 4.3.7.4.1



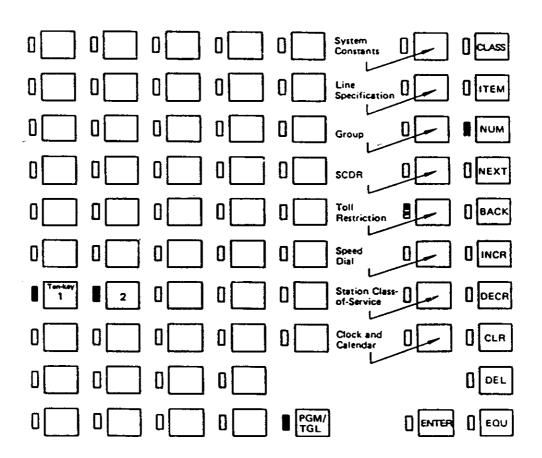


Figure 4.3.7.4.2



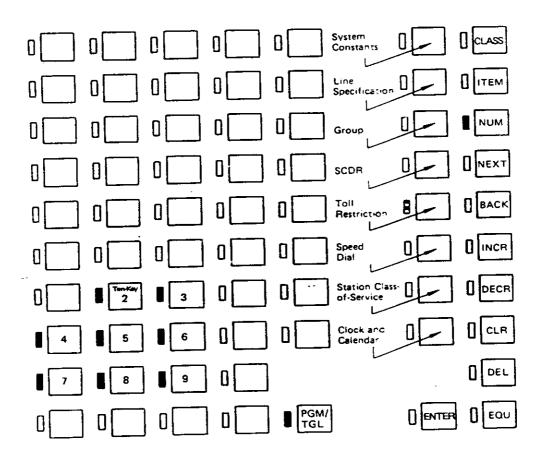
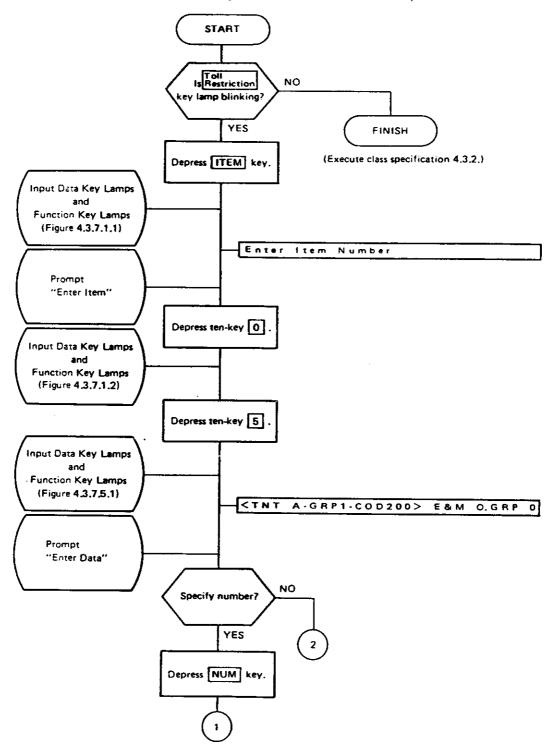
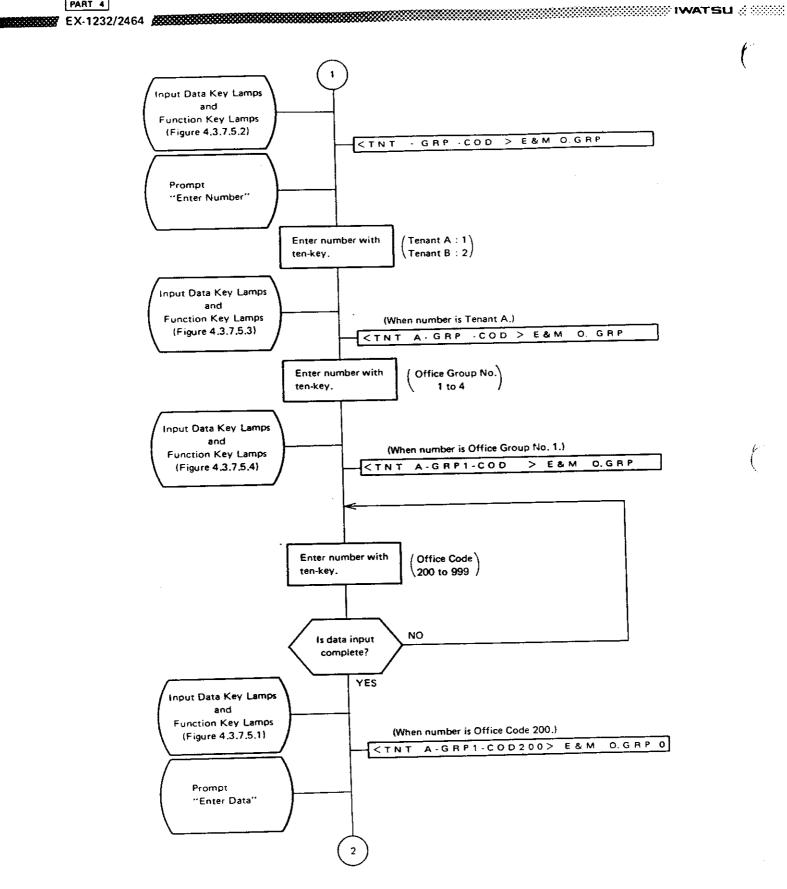


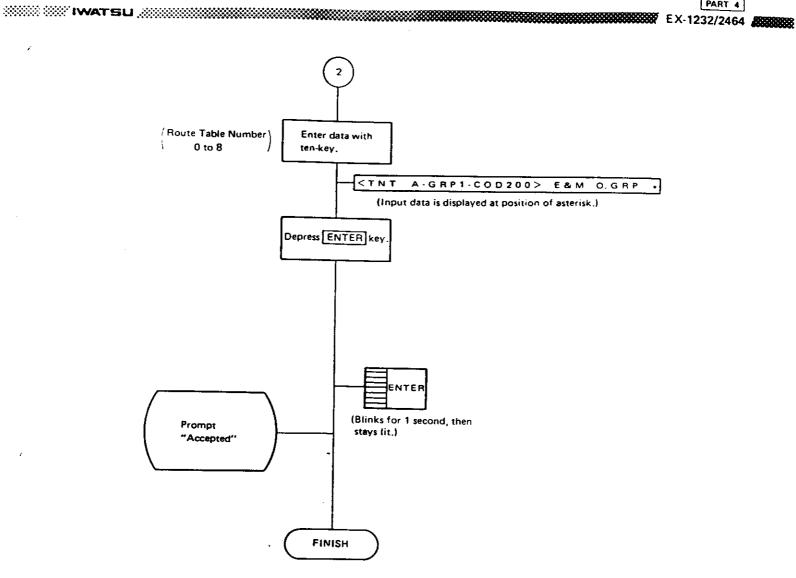
Figure 4.3.7.4.3

4.3.7.5 E&M Office Group Table (Item 5)

Feature: Setting Route Table No. according to Tenant A/B, Office Group No. and Office Code







<TNT A-GRP1-COD200> E&M O.GRP 0

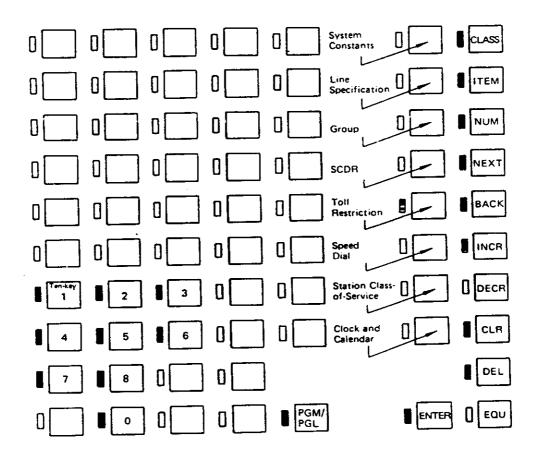
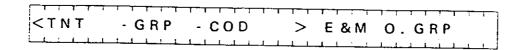


Figure 4.3.7.5.1



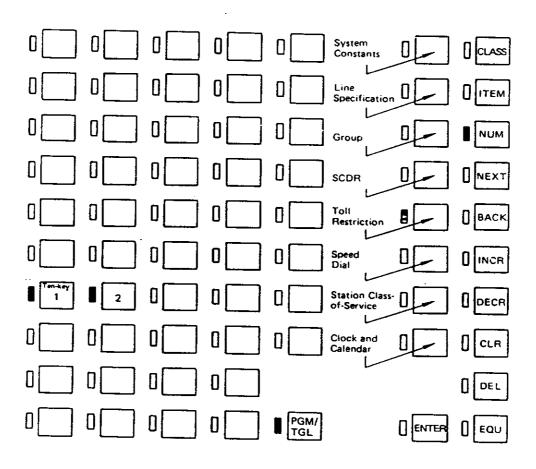


Figure 4.3.7.5.2

O. GRP E&M - COD AGRP < TNT

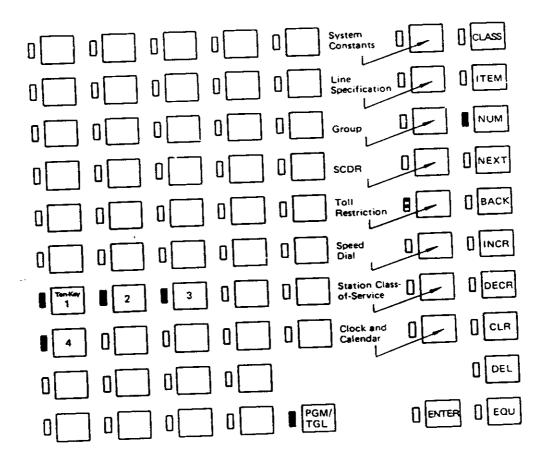
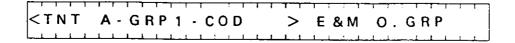


Figure 4.3.7.5.3



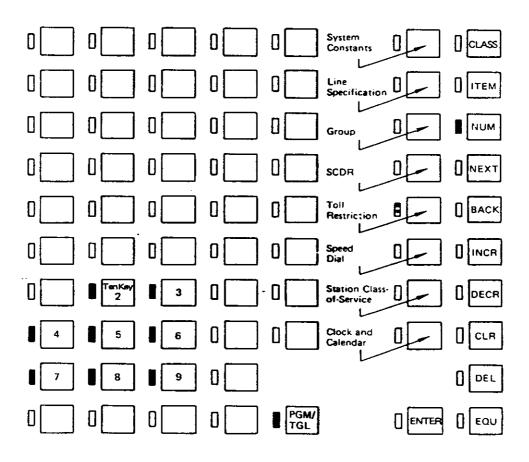
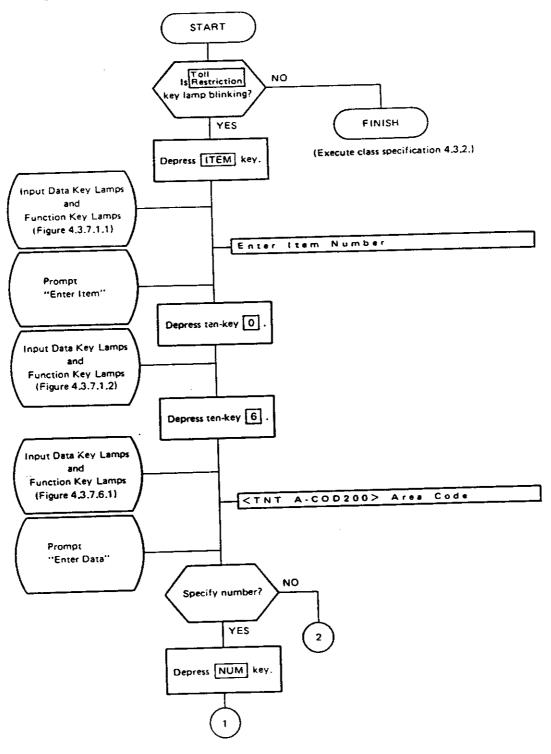
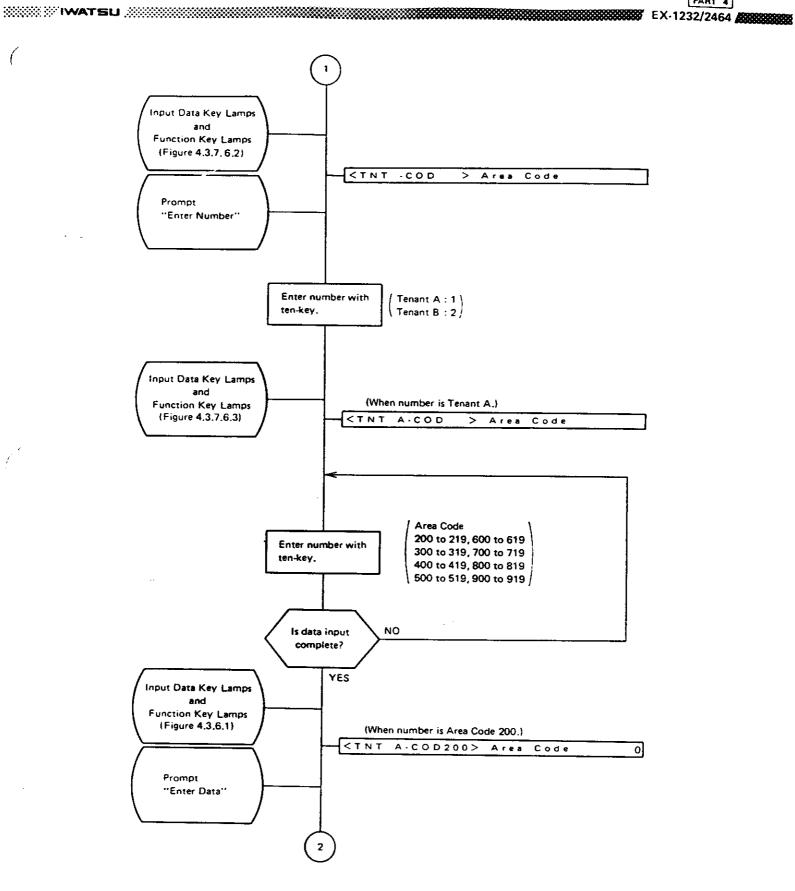


Figure 4.3.7.5.4

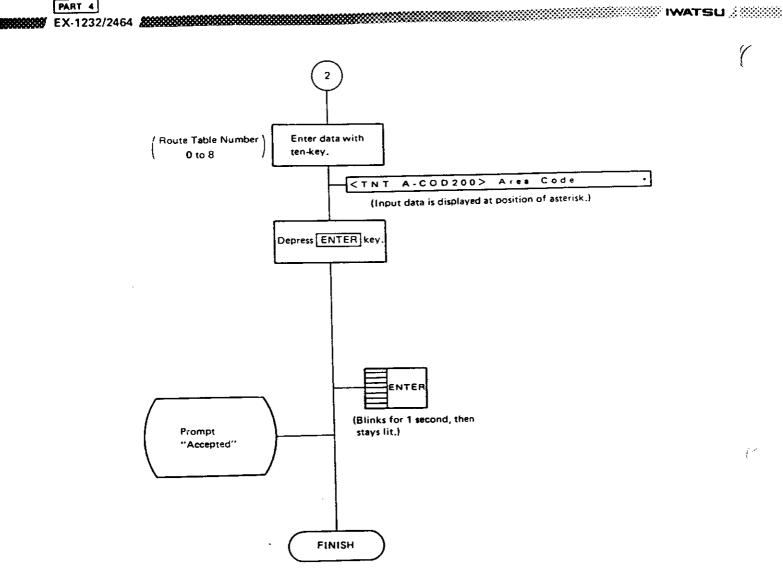
Area Code Table (Item 6) 4,3.7.6

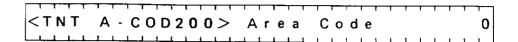
Setting Route Table No. according to Tenant A/B and Area Code Feature:





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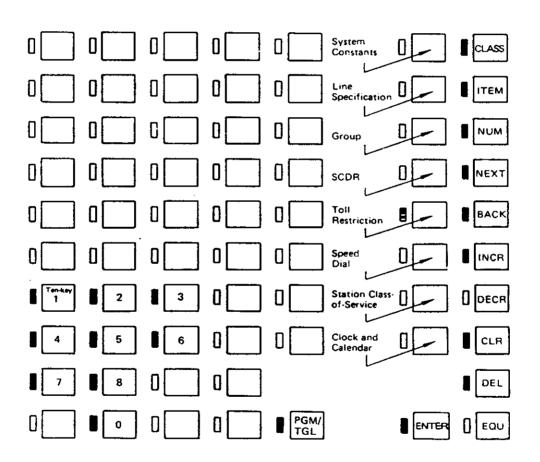
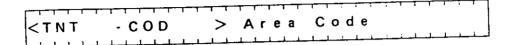


Figure 4.3.7.6.1



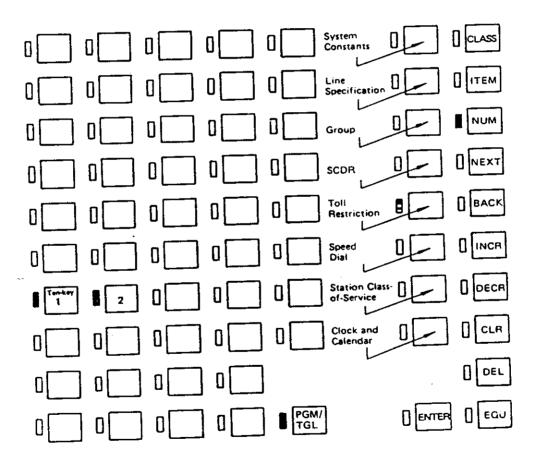


Figure 4.3.7.6.2

< TNTA - COD Area Code

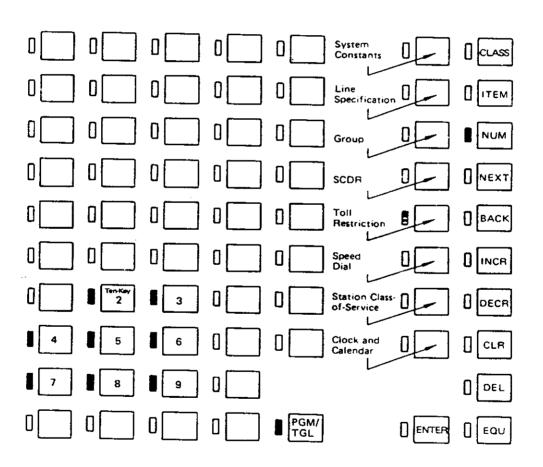
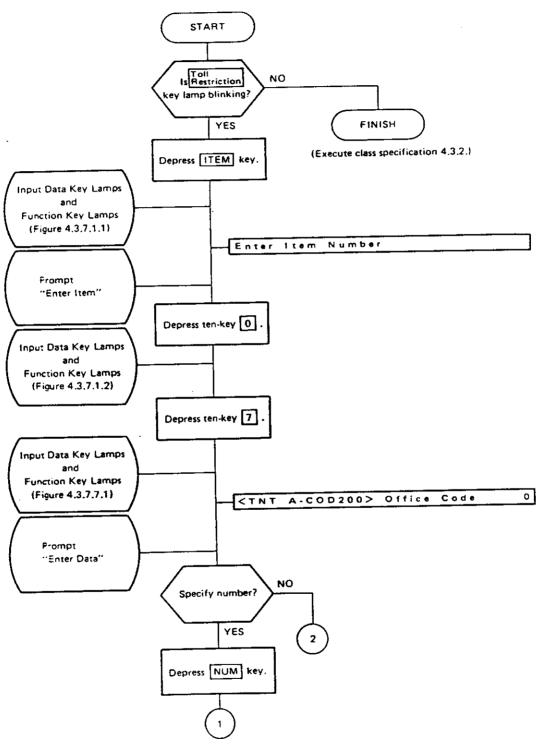


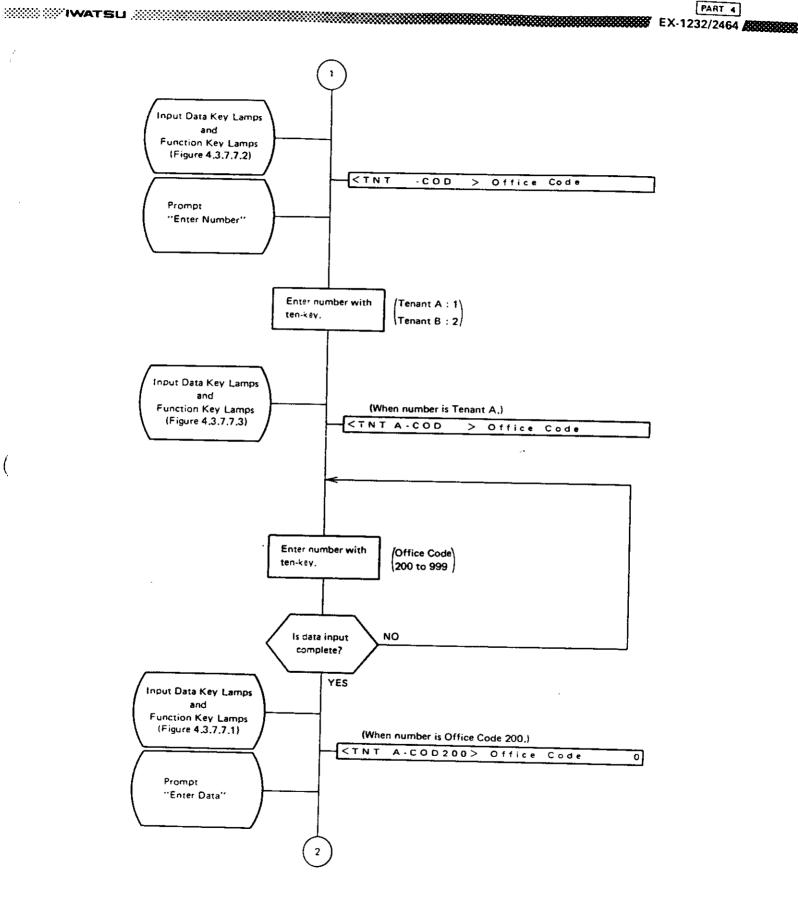
Figure 4.3.7.6.3

4.3.7.7 Office Code Table (Item 7)

Feature: Setting Route Table No. according to Tenant A/B and Office Code

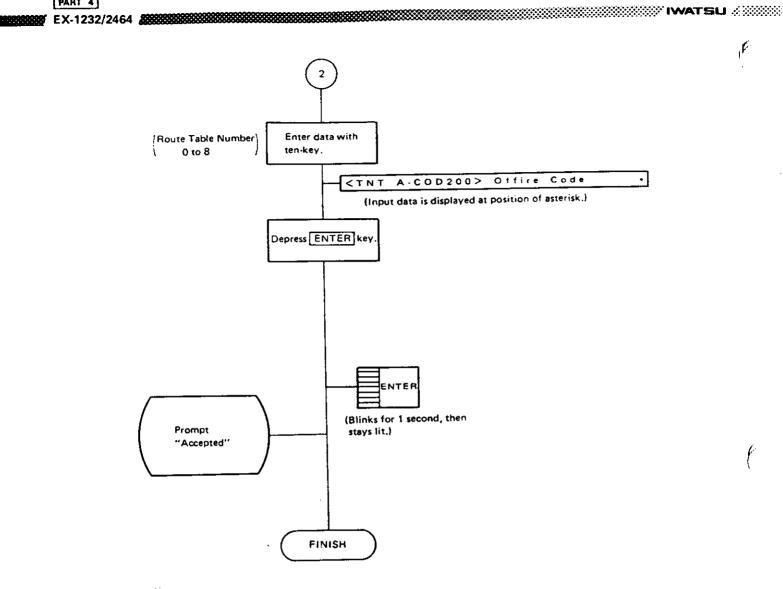


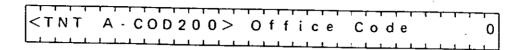
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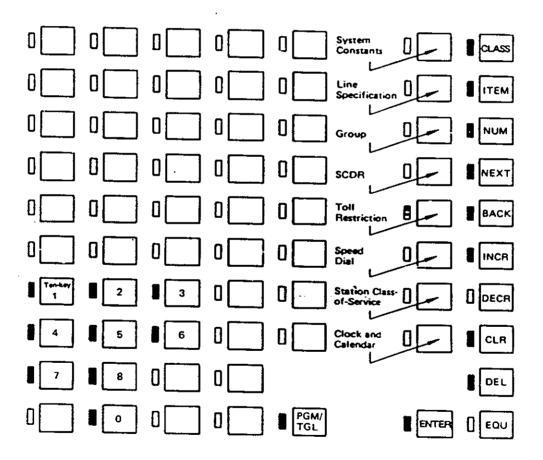


Figure 4.3.7.7.1

> Office Code - COD <TNT

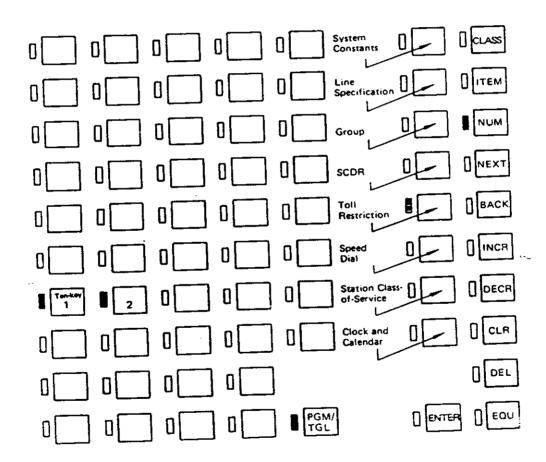


Figure 4.3.7.7.2



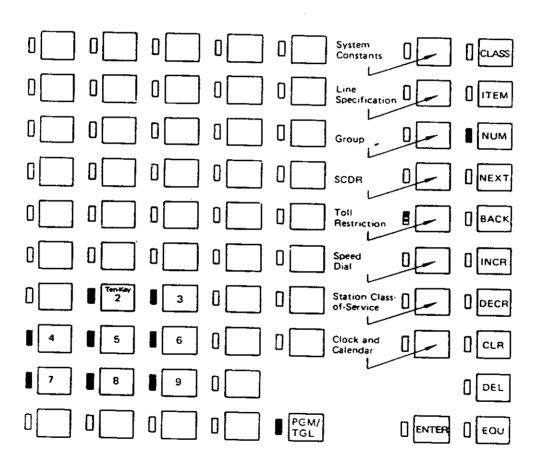
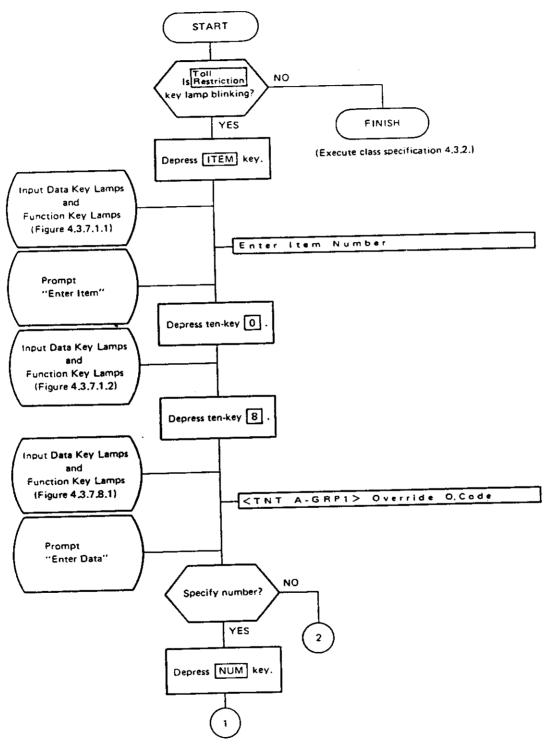
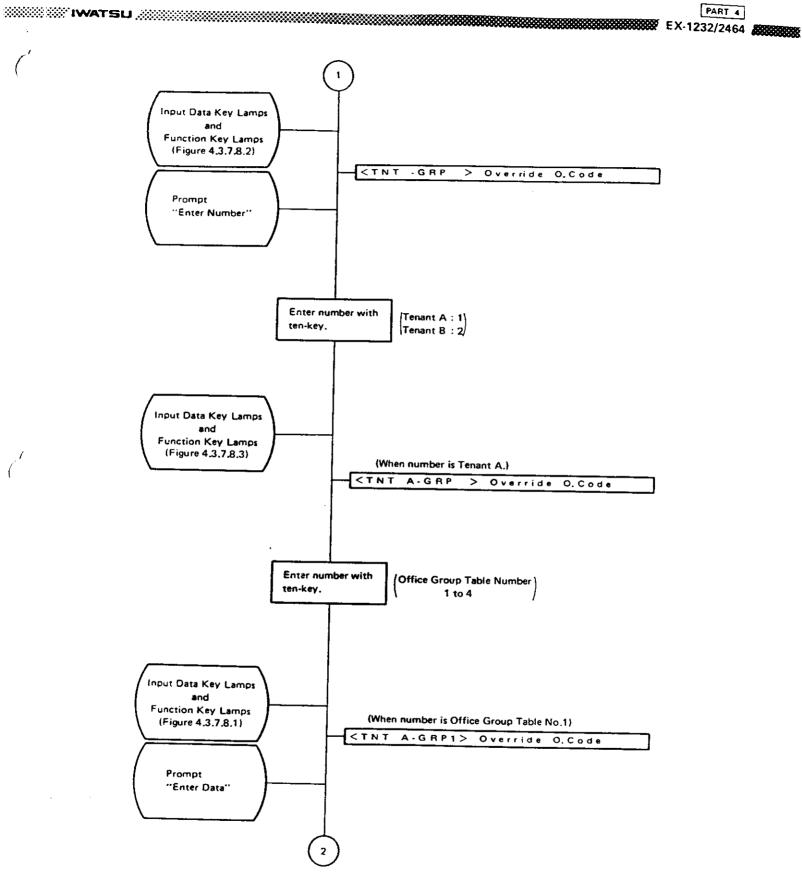


Figure 4.3.7.7.3

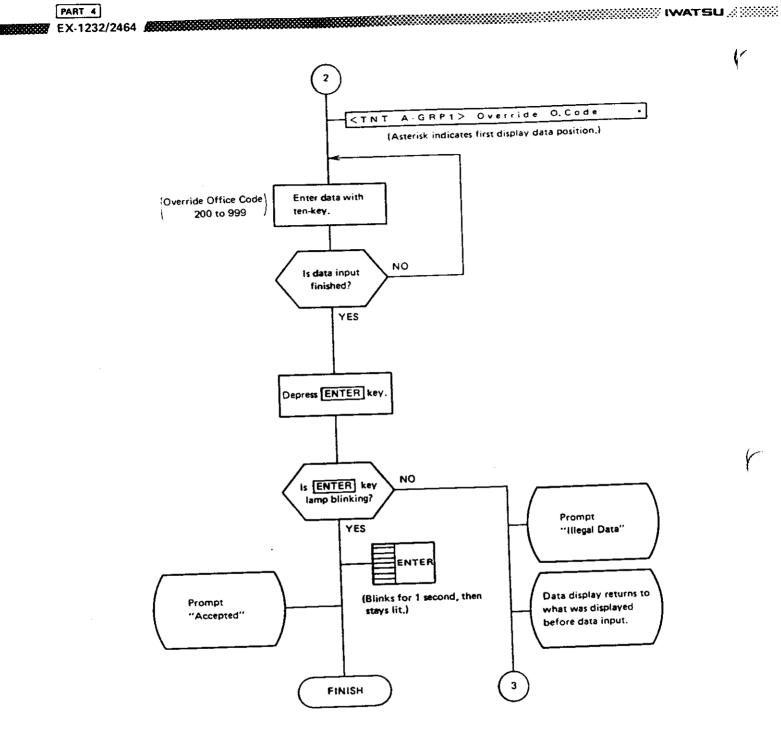
Override Office Code. (Item 8) 4.3.7.8

Setting Override Office Code according to Tenant A/B and Office Group Table No. Feature:





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<TNT A - G R P 1 > Override O. Code

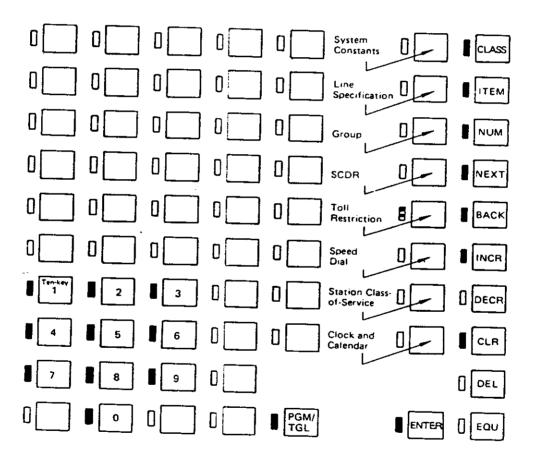


Figure 4.3.7.8.1



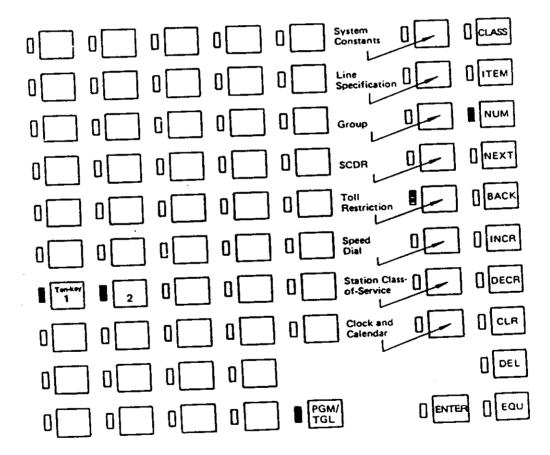


Figure 4.3.7.8.2

< TNTA-GRP Override > O. Code

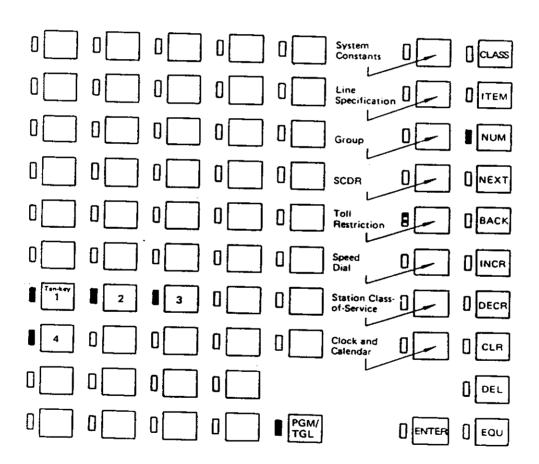
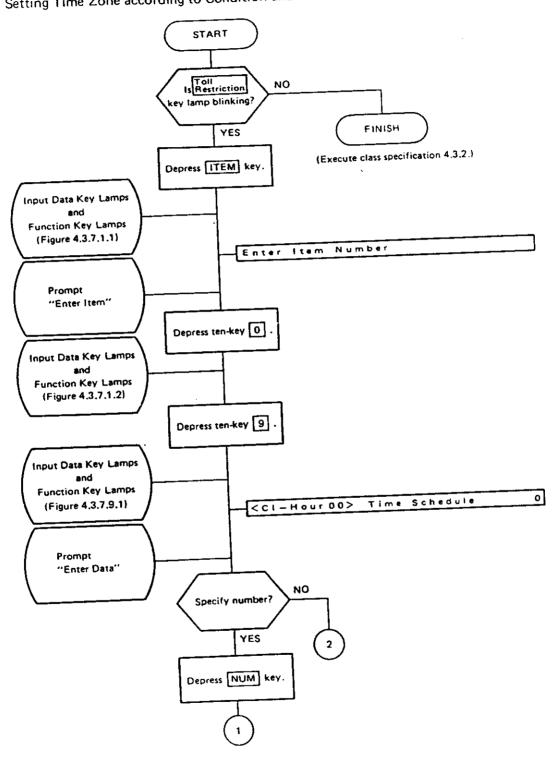
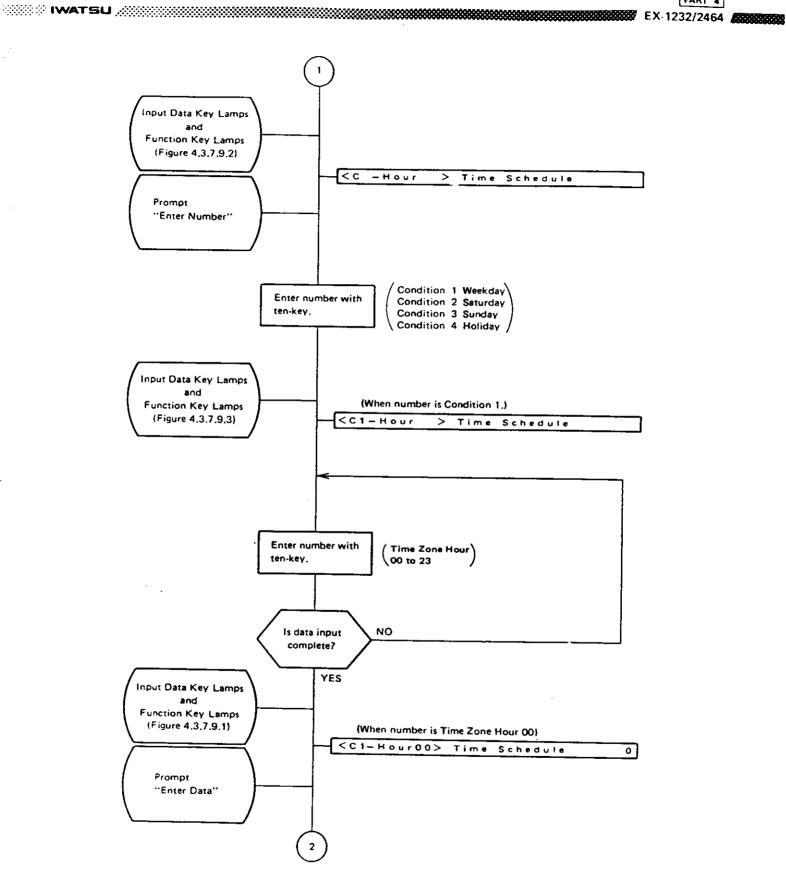


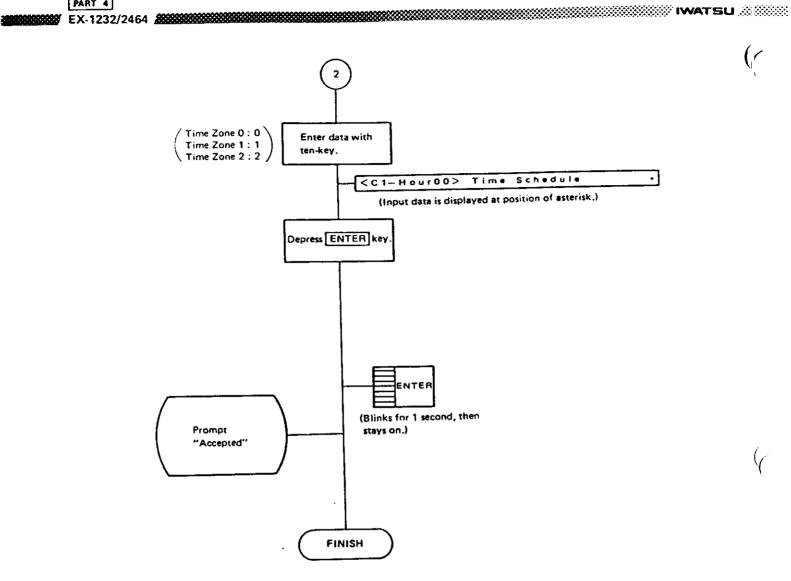
Figure 4.3.7.8.3

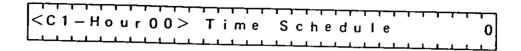
Time Schedule (Item 9) 4.3.7.9

Setting Time Zone according to Condition and Time Zone Hour Feature:









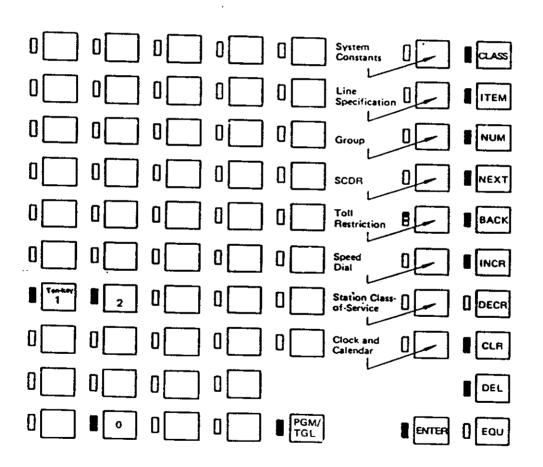


Figure 4.3.7.9.1

Schedule Time

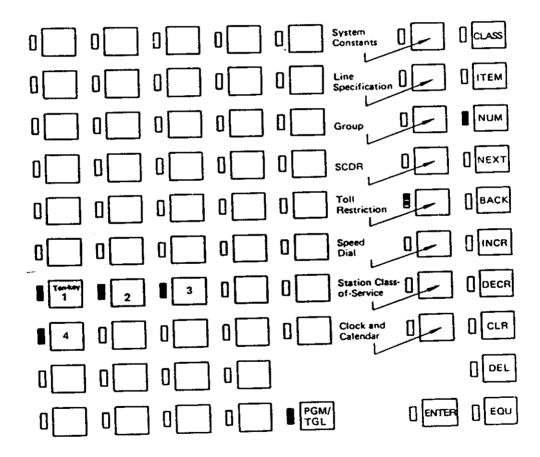


Figure 4.3.7.9.2

Time Schedule

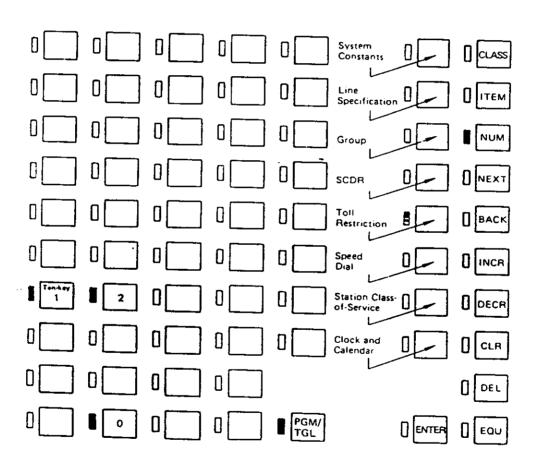
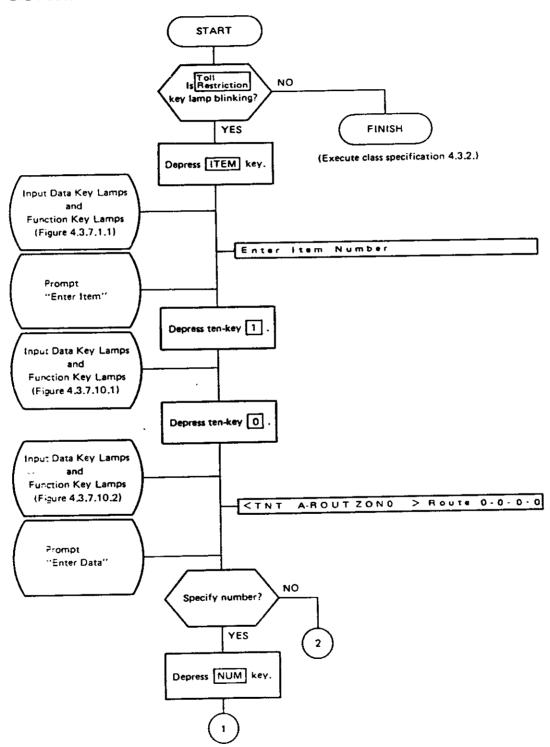
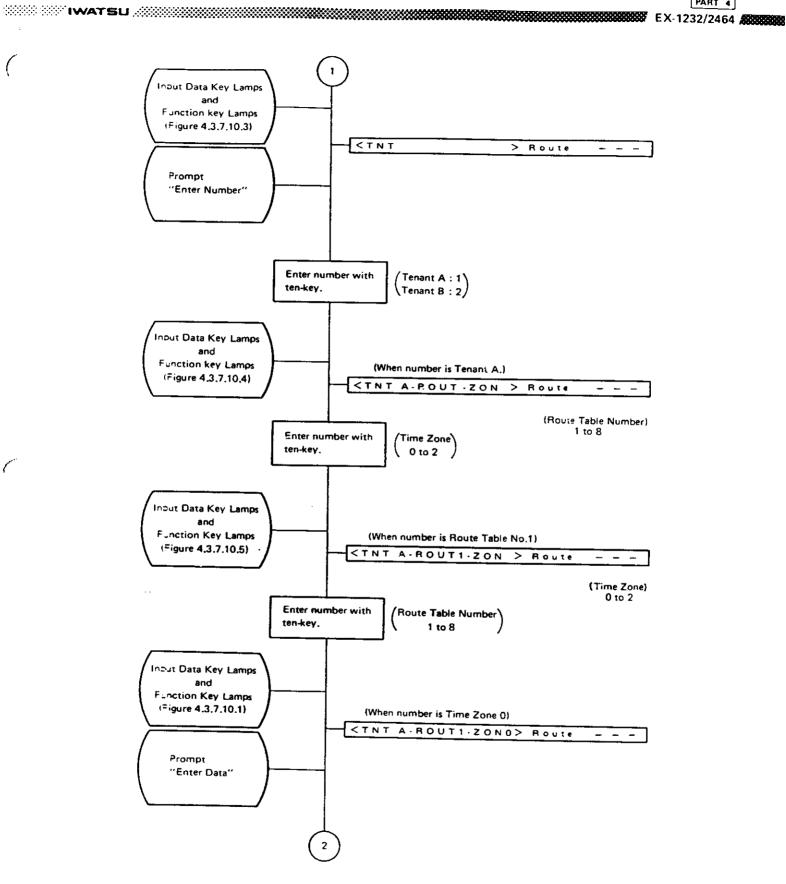


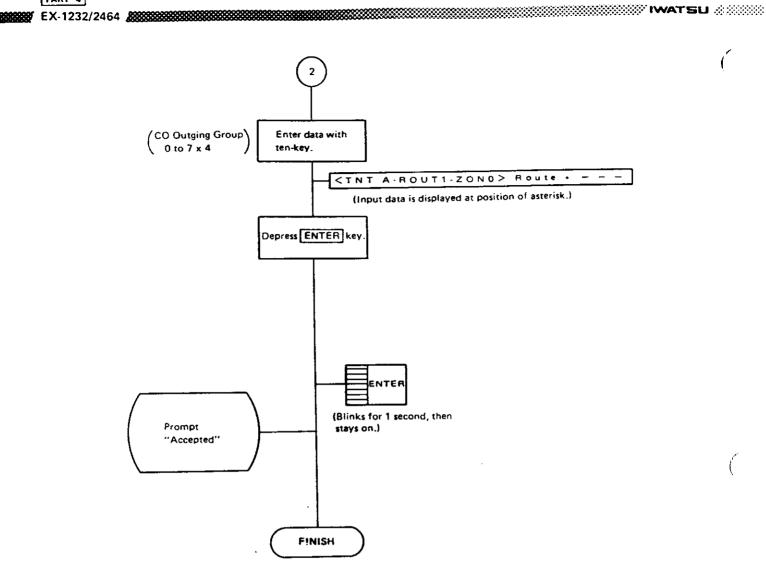
Figure 4.3.7.9.3

Route Table (Item 10) 4.3.7.10

Setting CO Outgoing Group No. according to Tenant A/B, Time Zone Feature: and Route Table No.







Enter I t e m Number

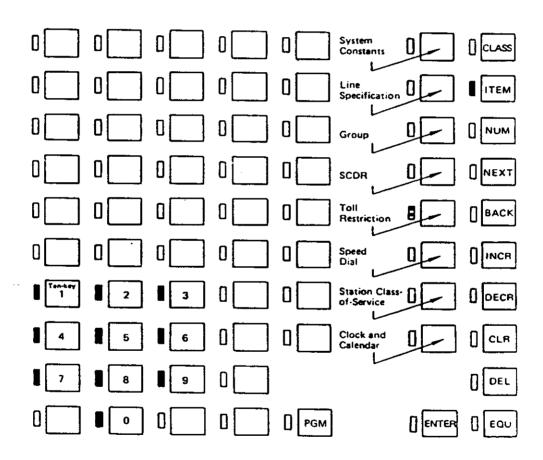


Figure 4.3.7.10.1

0 - 0 - 0 - 0A - ROUT 1 - ZON 0> Route

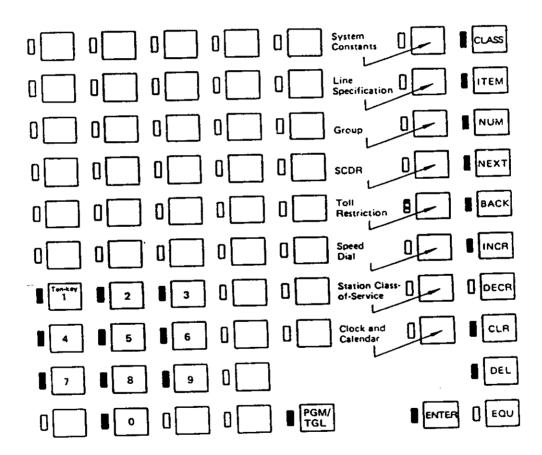


Figure 4.3.7.10.2

<TNT - ROUT - Z O N > Route

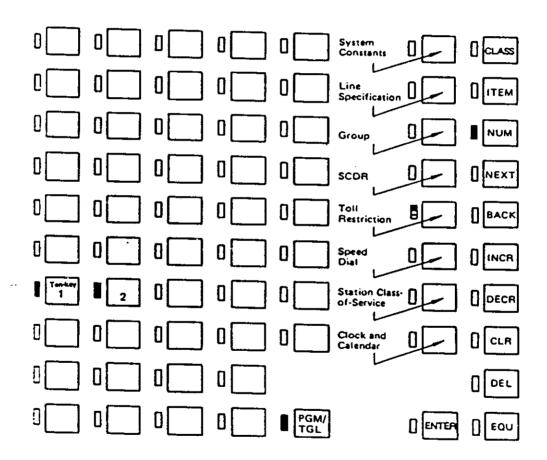


Figure 4.3.7.10.3

<TNT A-RONUT - ZON> Route - - -

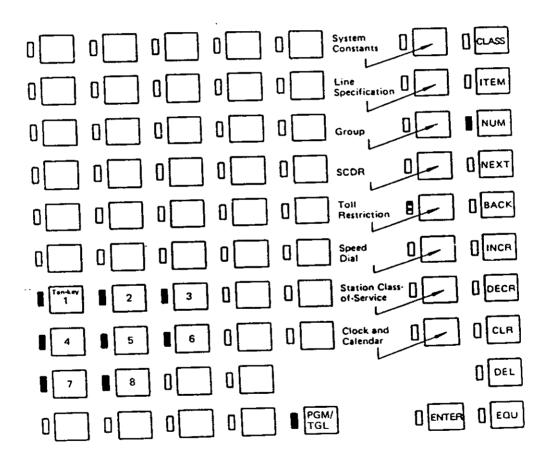
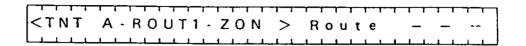


Figure 4.3.7.10.4



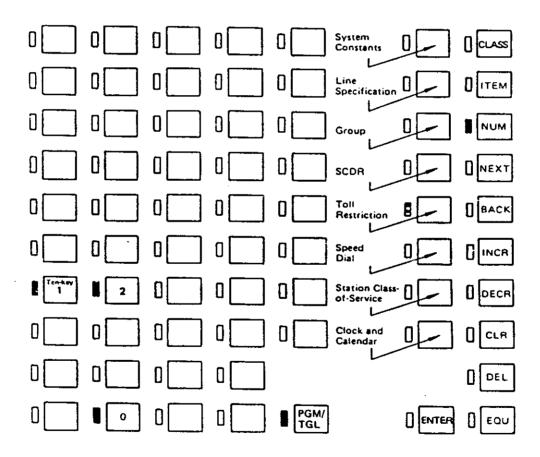
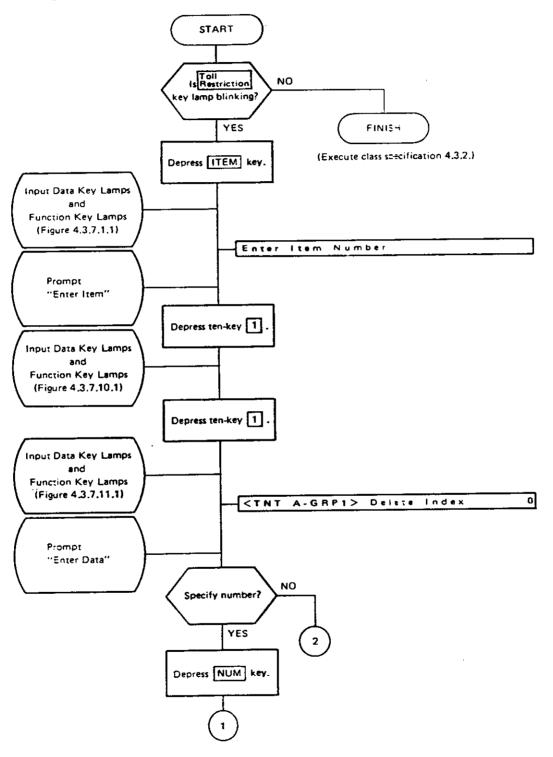
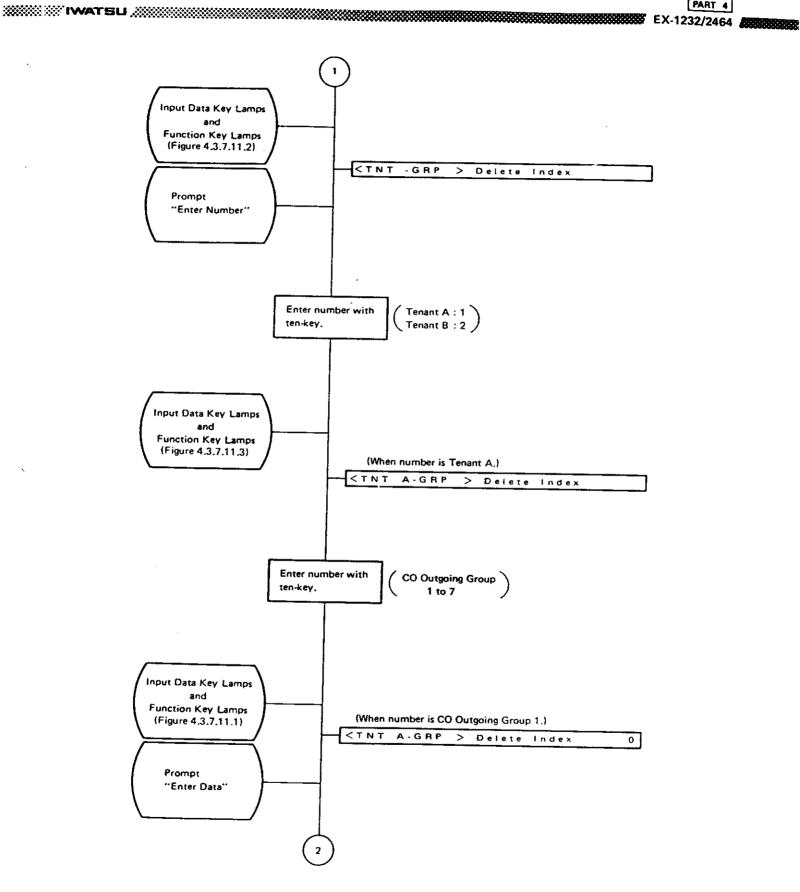


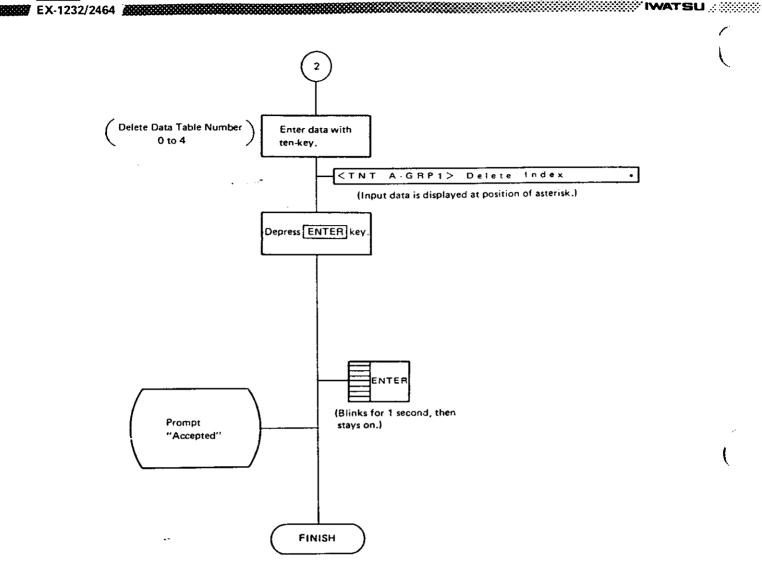
Figure 4.3.7.10.5

Delete Index Table (Item 11) 4.3.7.11

Setting Delete Data Table No. according to Tenant A/B and CO outgoing Group Feature:









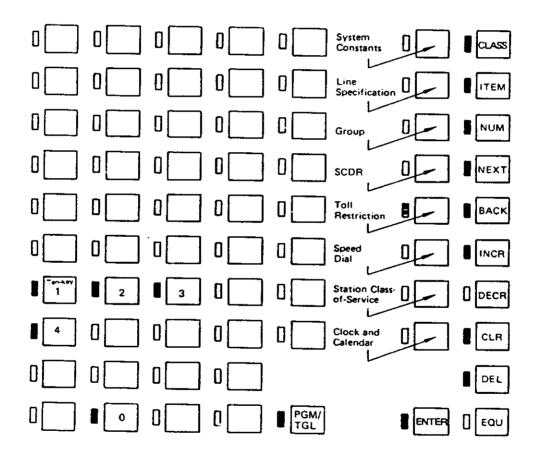


Figure 4.3.7.11.1

<TNT -GRP > Delete Index

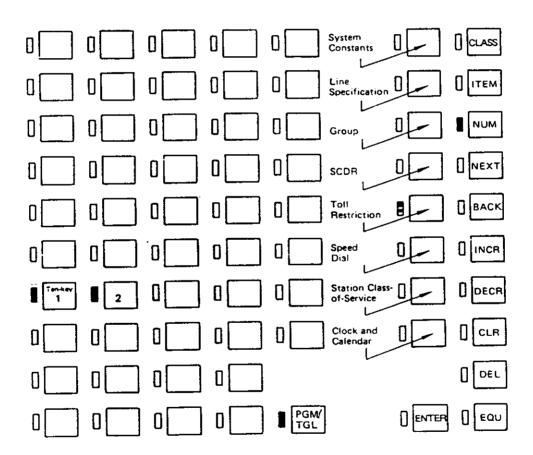


Figure 4.3.7.11.2

<TNT A-GRP > Delete Index

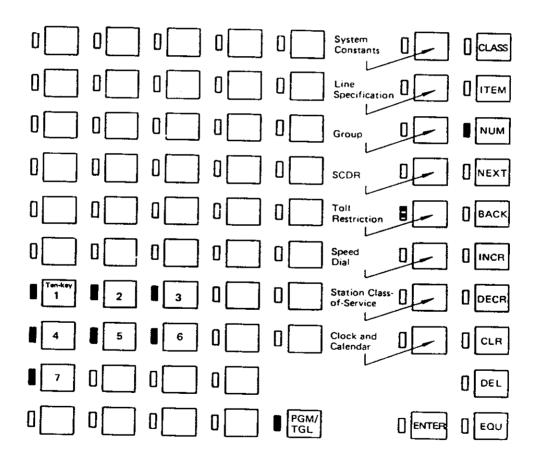
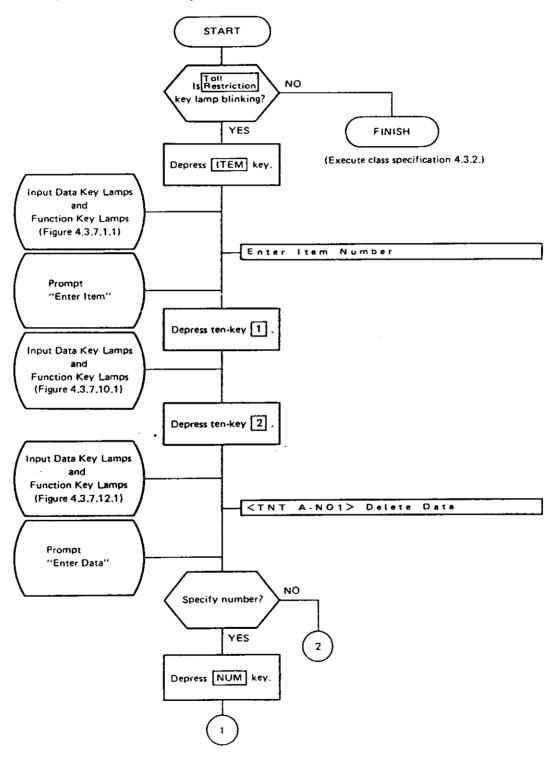
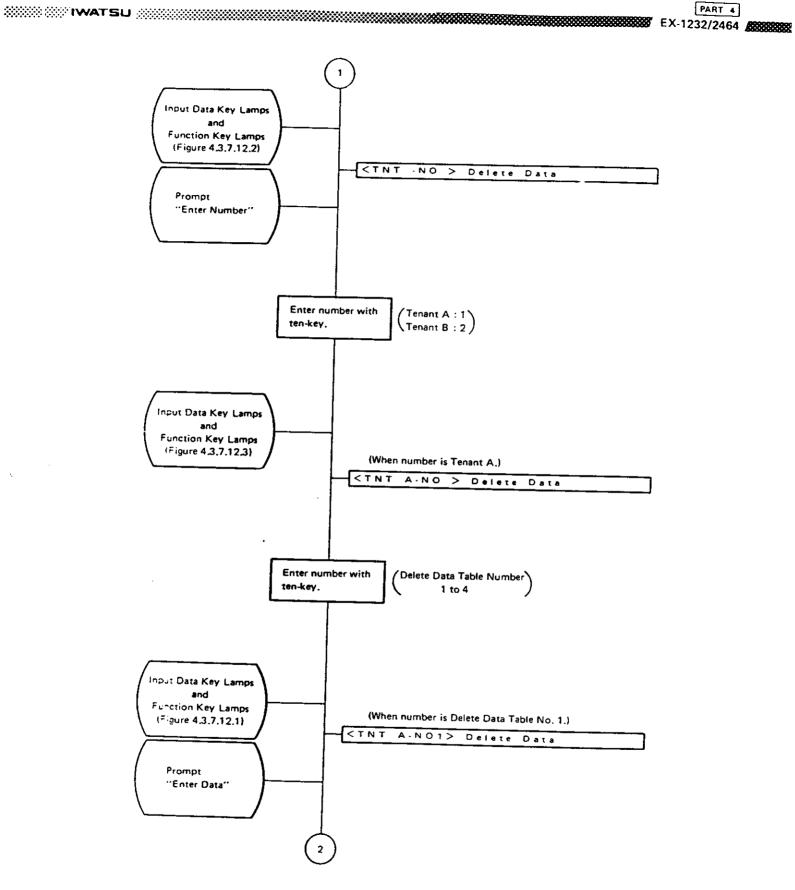


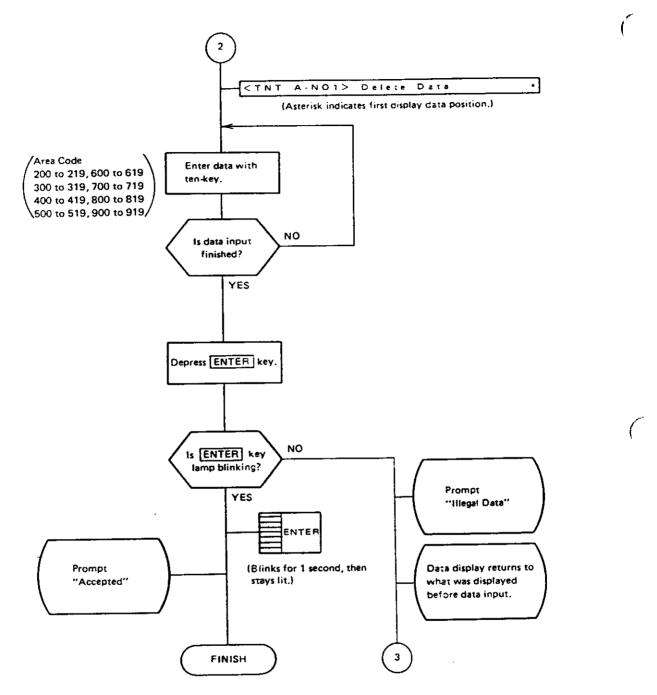
Figure 4.3.7.11.3

4.3.7.12 Delete Data Table (Item 12)

Feature: Setting Area Code according to Tenant A/B and Delete Data Table No.







A-NO1> Delete Data

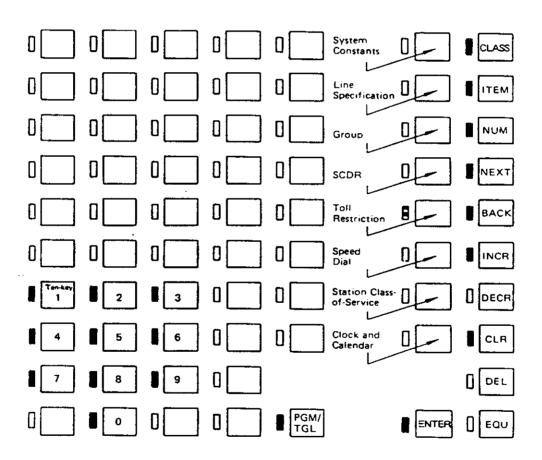


Figure 4.3.7.12.1



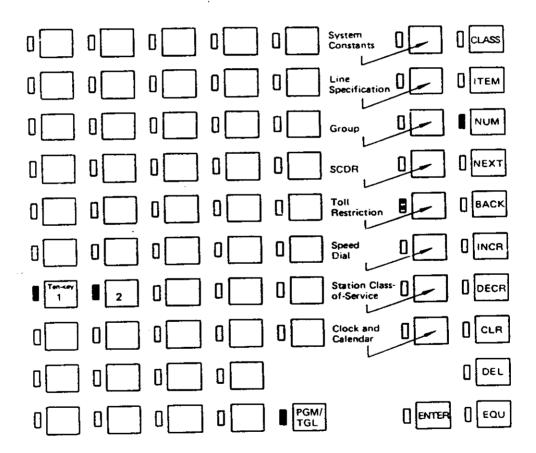


Figure 4.3.7.12.2



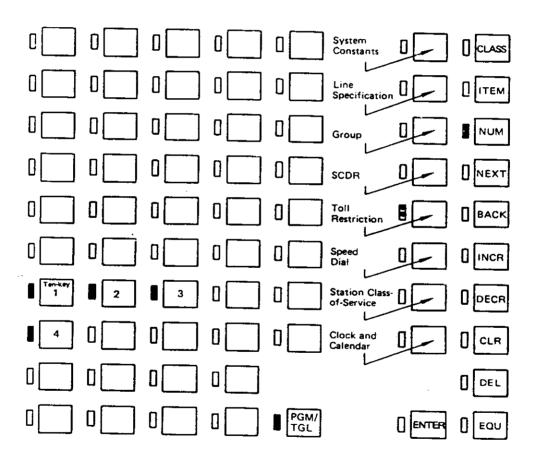
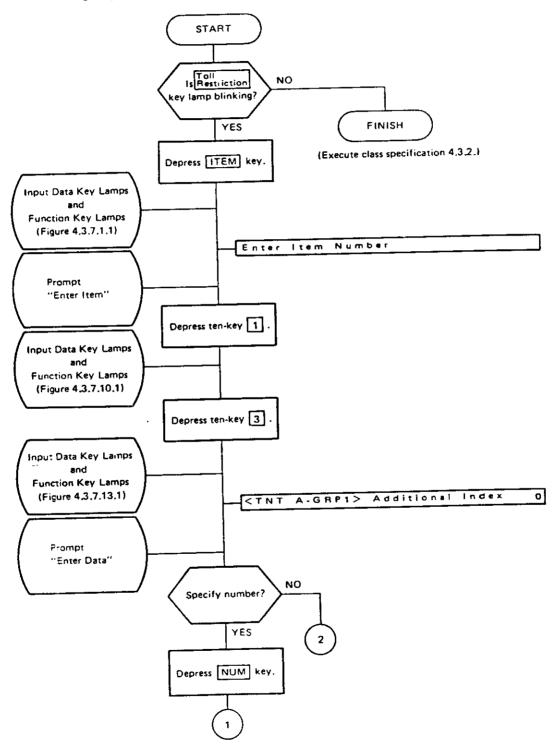
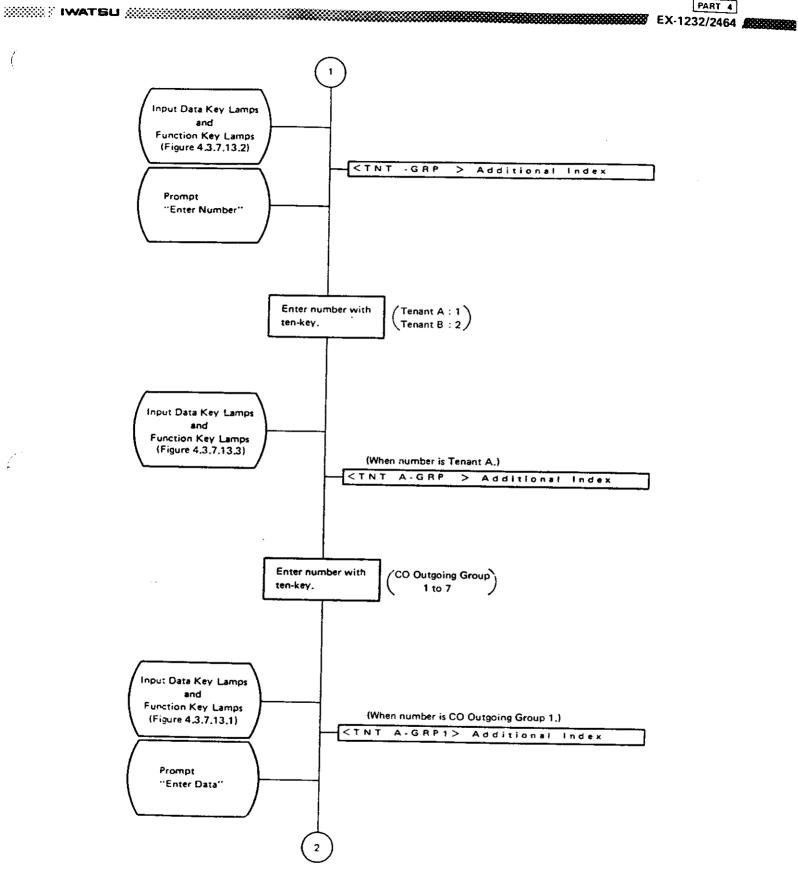


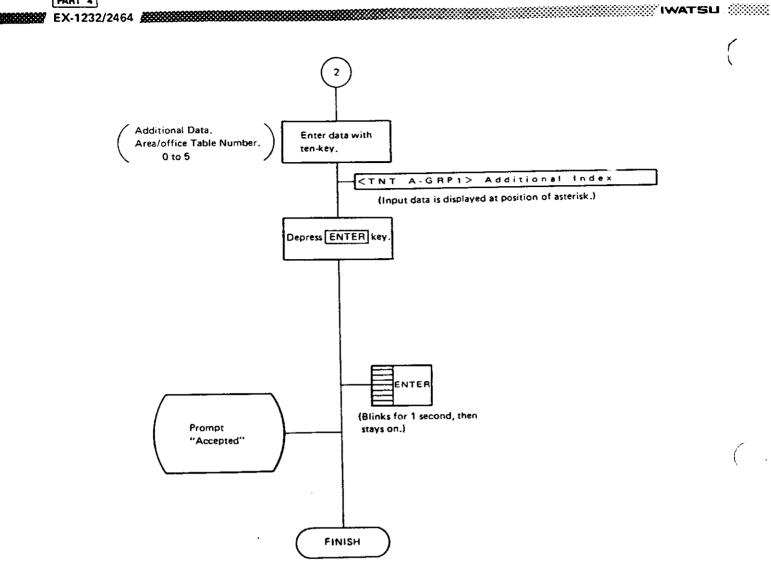
Figure 4.3.7.12.3

Additional Index Table (Item 13) 4.3.7.13

Setting Additional Data Area/office Table No. according to Tenant A/B Feature: and CO outgoing Group









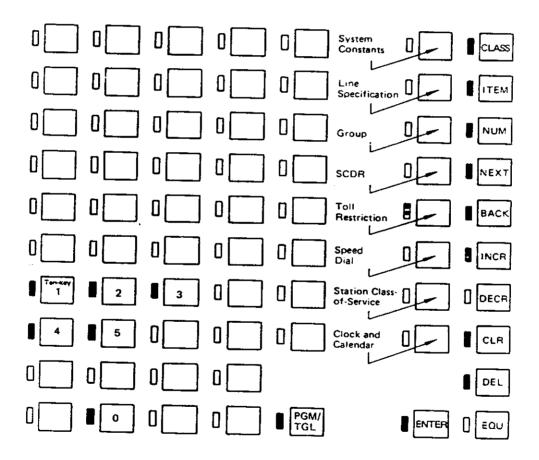


Figure 4.3.7.13.1

> Additional Index - GRP <TNT

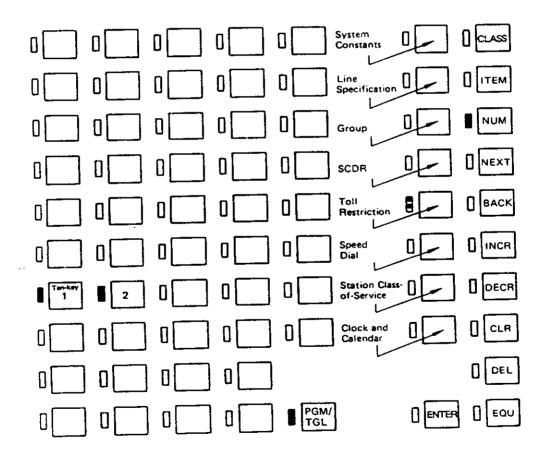


Figure 4.3.7.13.2

<TNT A-GRP > Additional Index

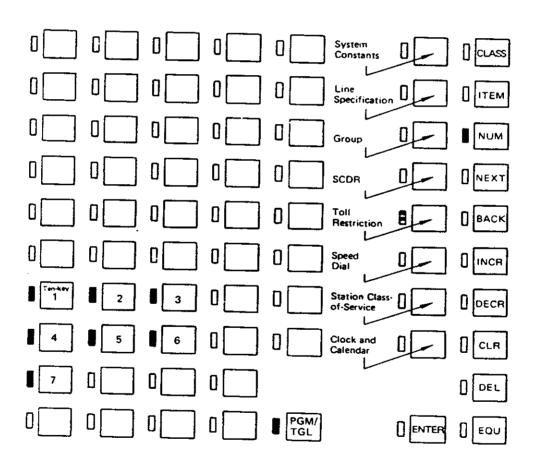
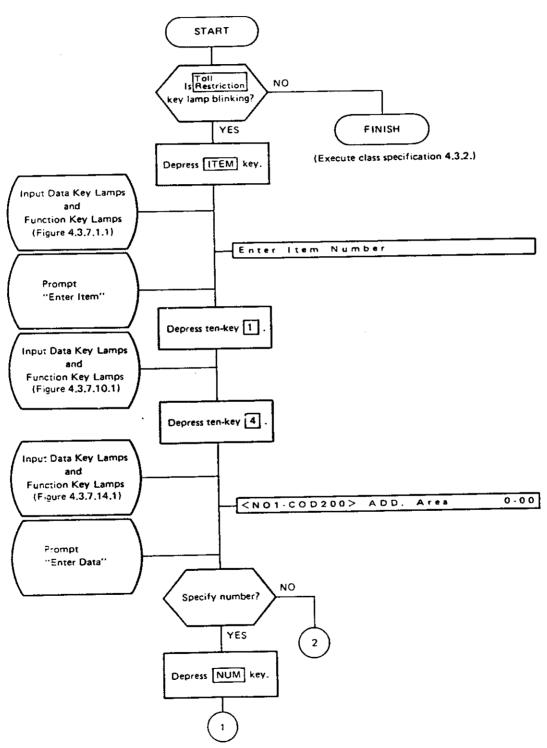
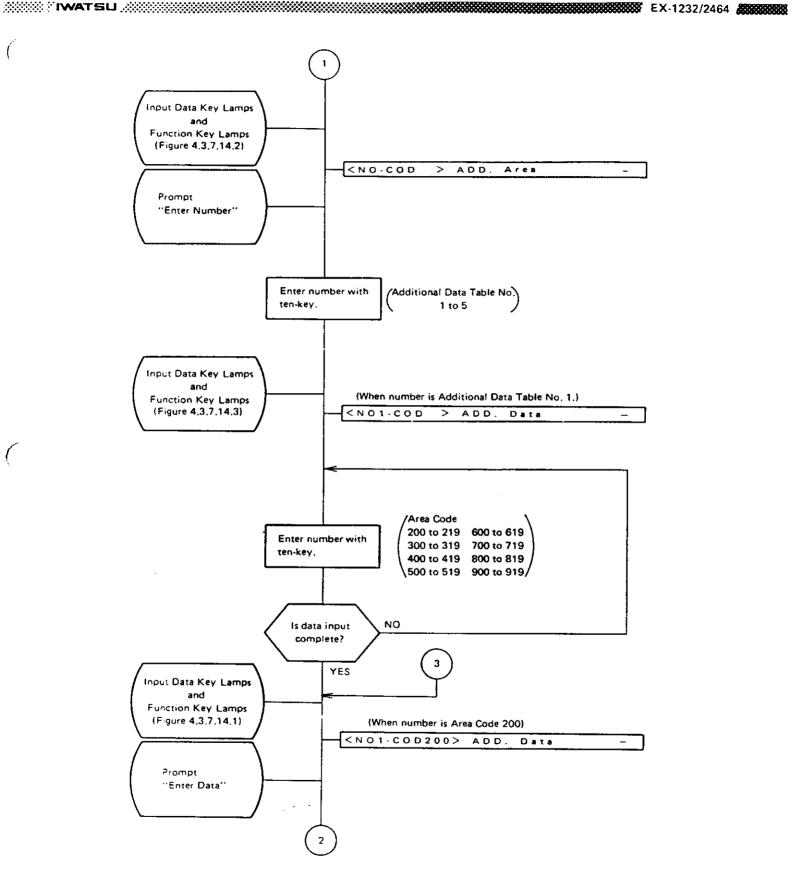


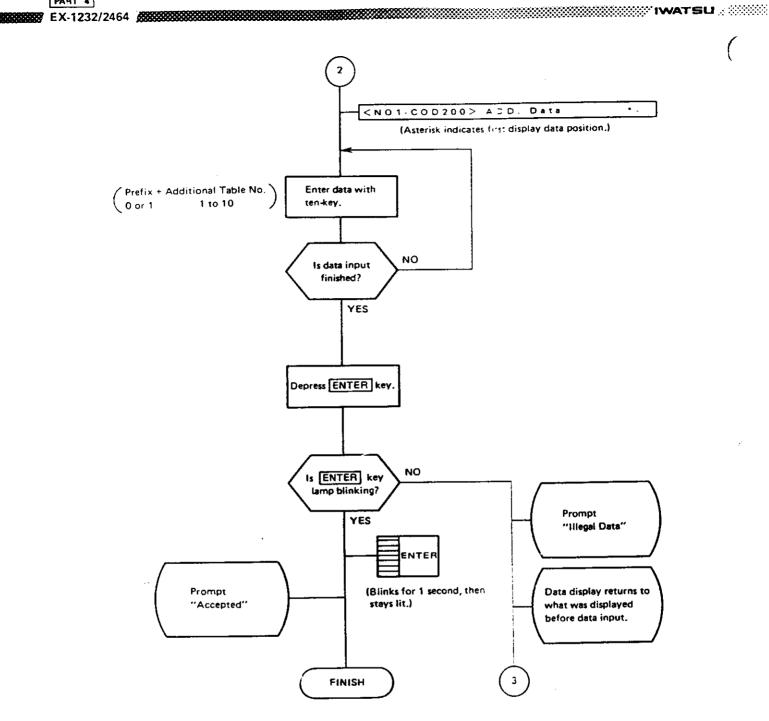
Figure 4.3.7.13.3

4.3.7.14 Additional Data Area Table (Item 14)

Feature: Setting Prefix and Additional Table No. according to Additional Data Table No. and Area Code











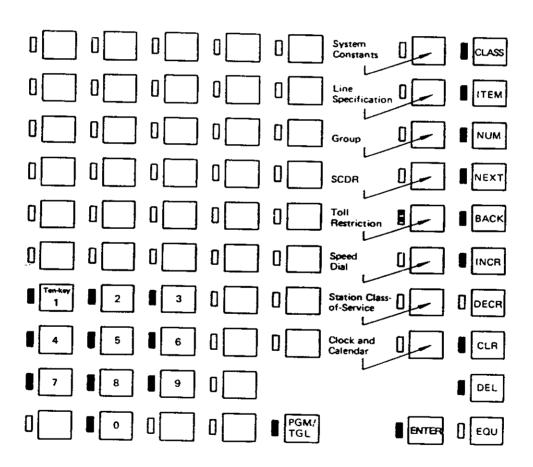


Figure 4.3.7.14.1

<NO - COD > ADD. Area

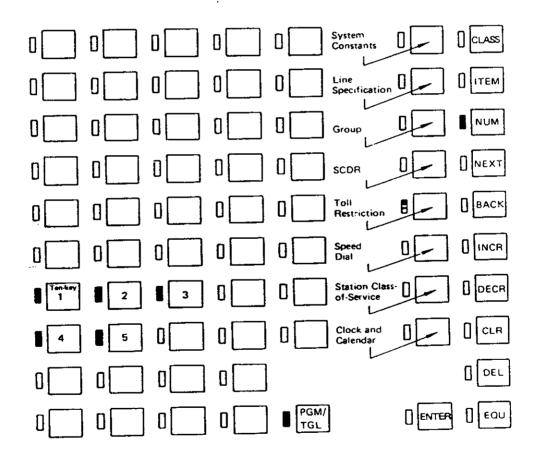
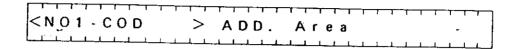


Figure 4.3.7.14.2



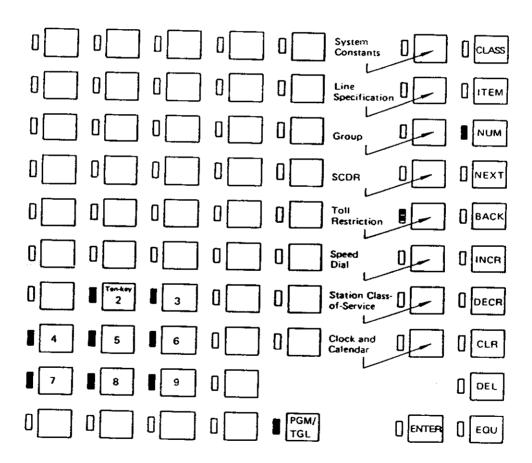
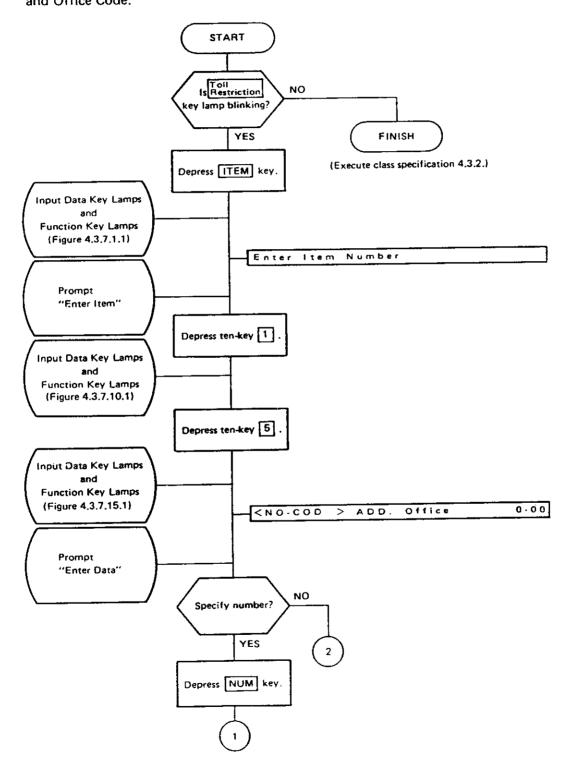
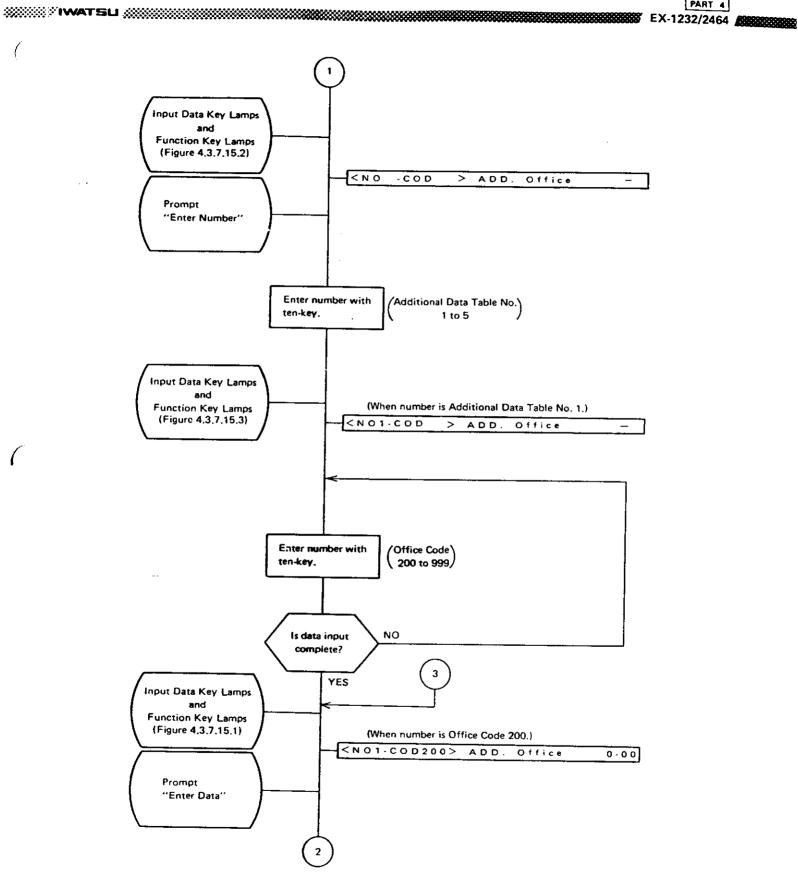


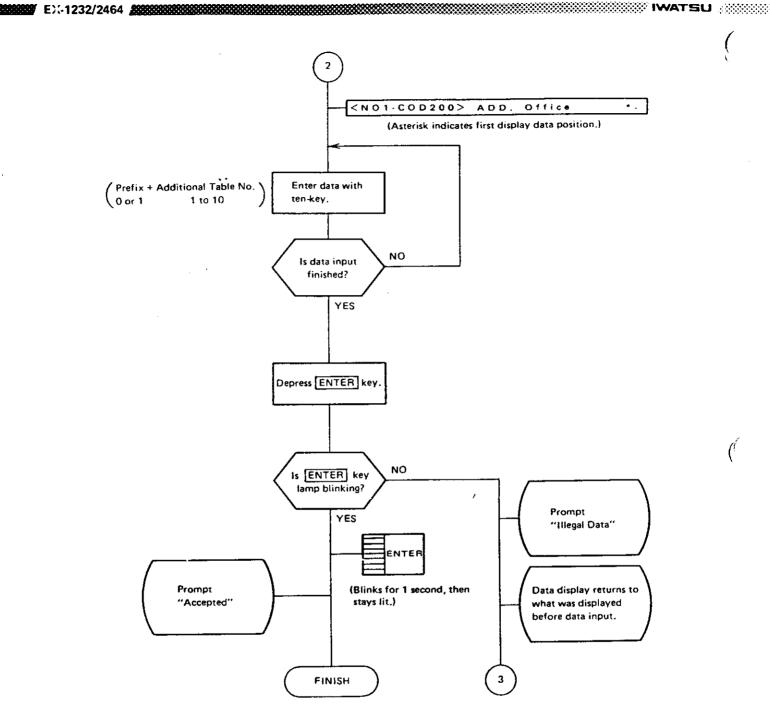
Figure 4.3.7.14.3

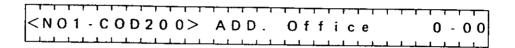
Additional Data Office Table (Item 15) 4.3.7.15

Setting Prefix and Additional Table No. according to Additional Table No. Feature: and Office Code.









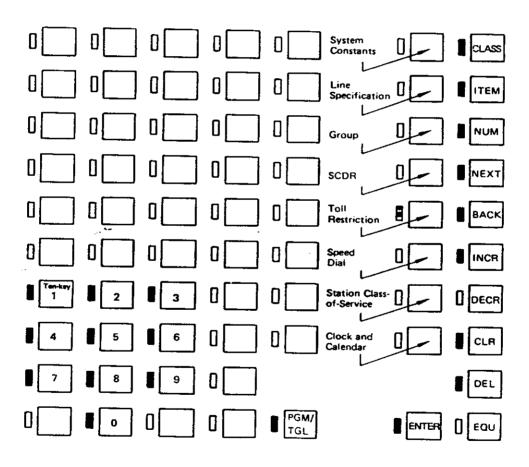


Figure 4.3.7.15.1



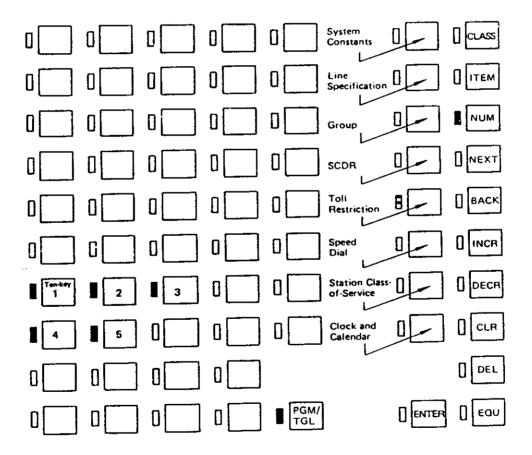


Figure 4.3.7.15.2



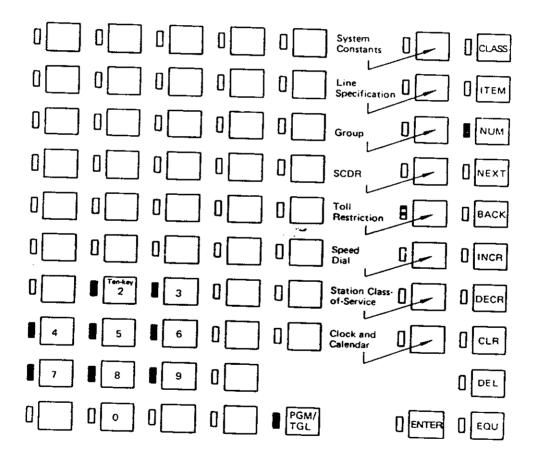
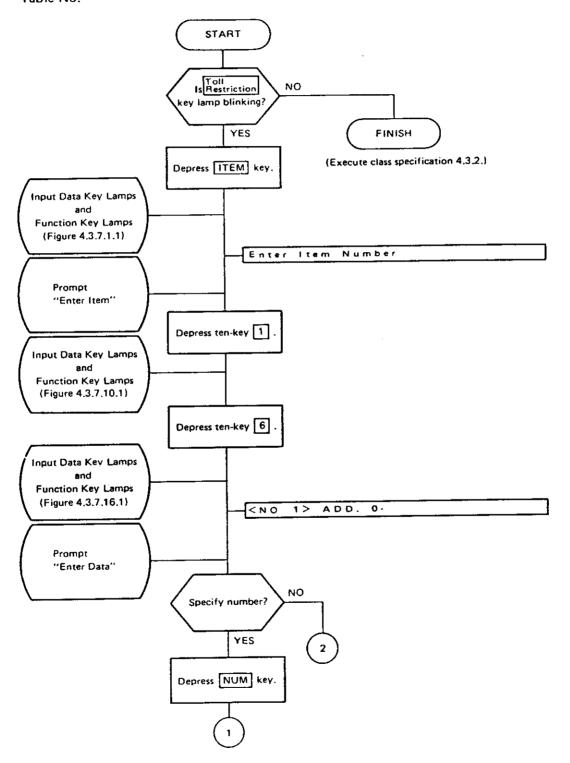
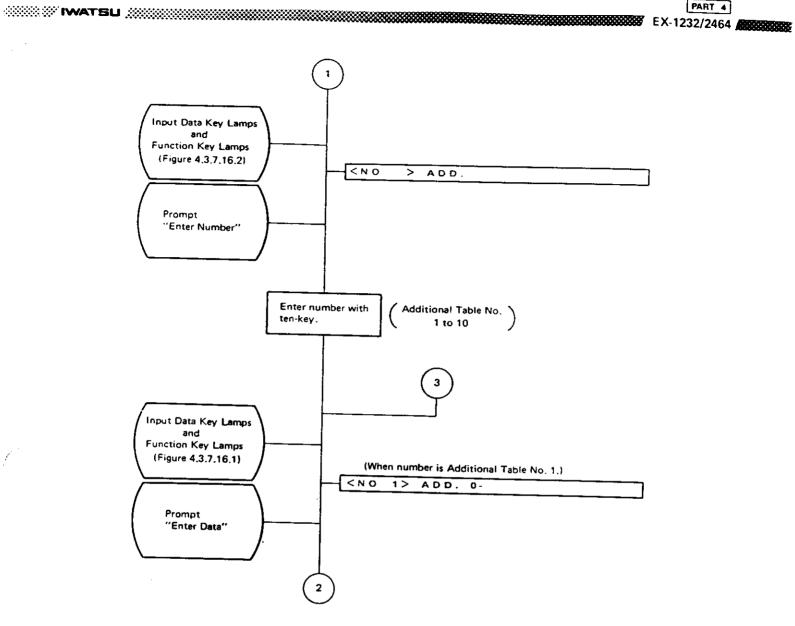


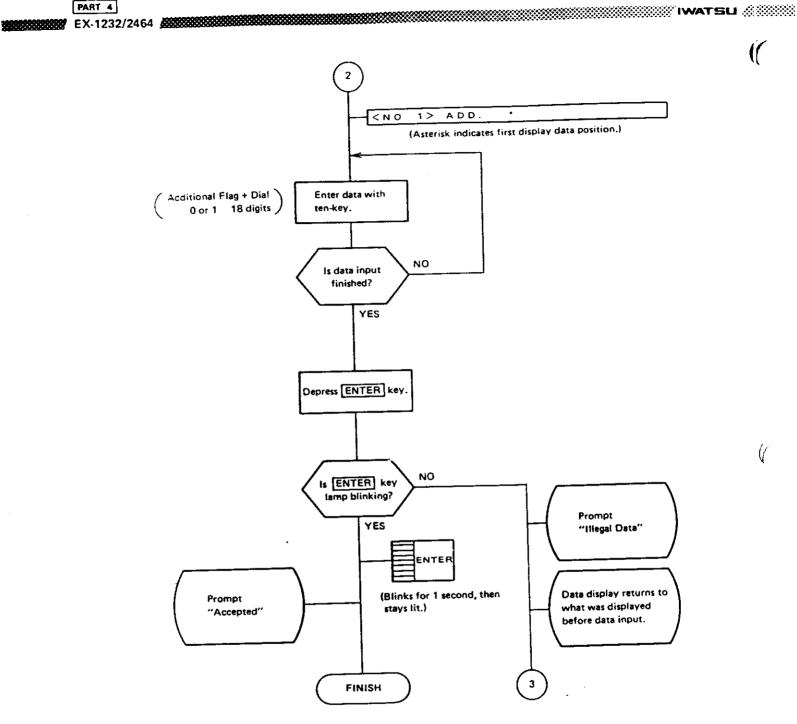
Figure 4.3.7.15.3

4.3.7.16 Additional Table (Item 16)

Feature: Setting Additional Flag and Additional Dial according to Additional Table No.







< NO1 > ADD. 0 -

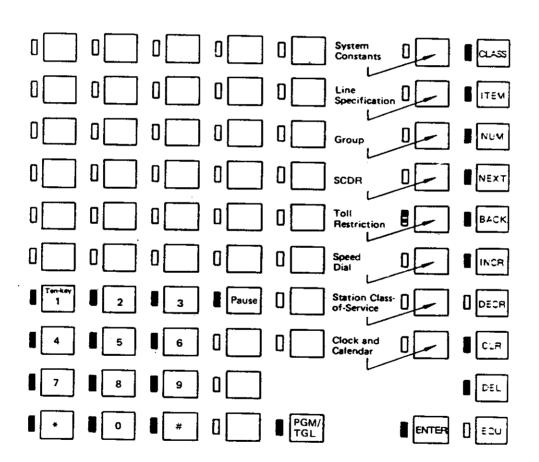


Figure 4.3.7.16.1

ADD. < NO

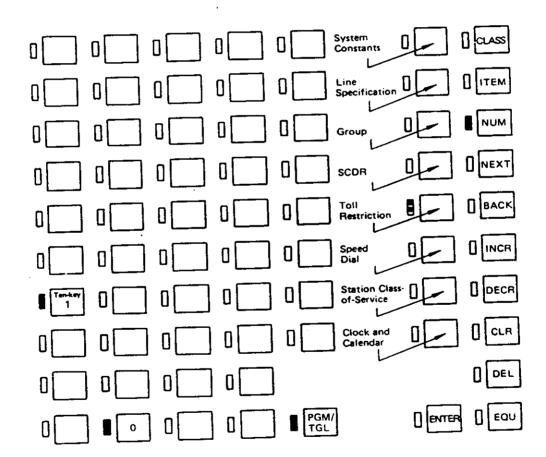
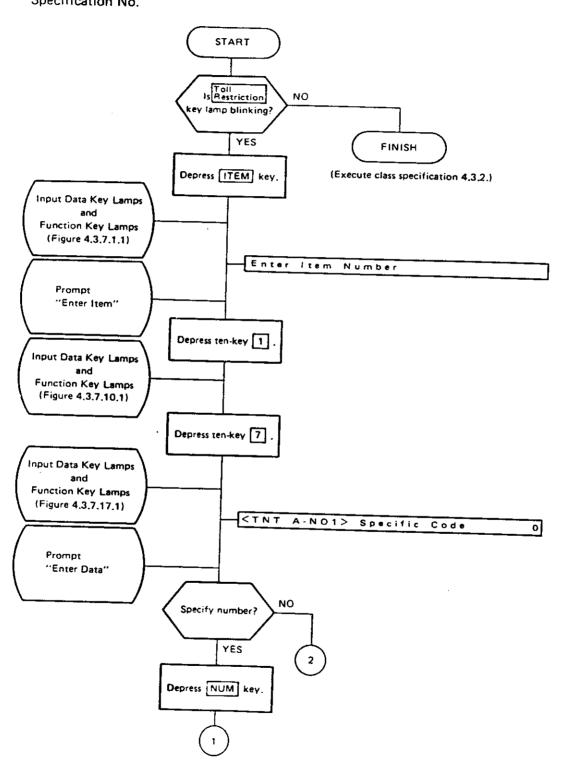
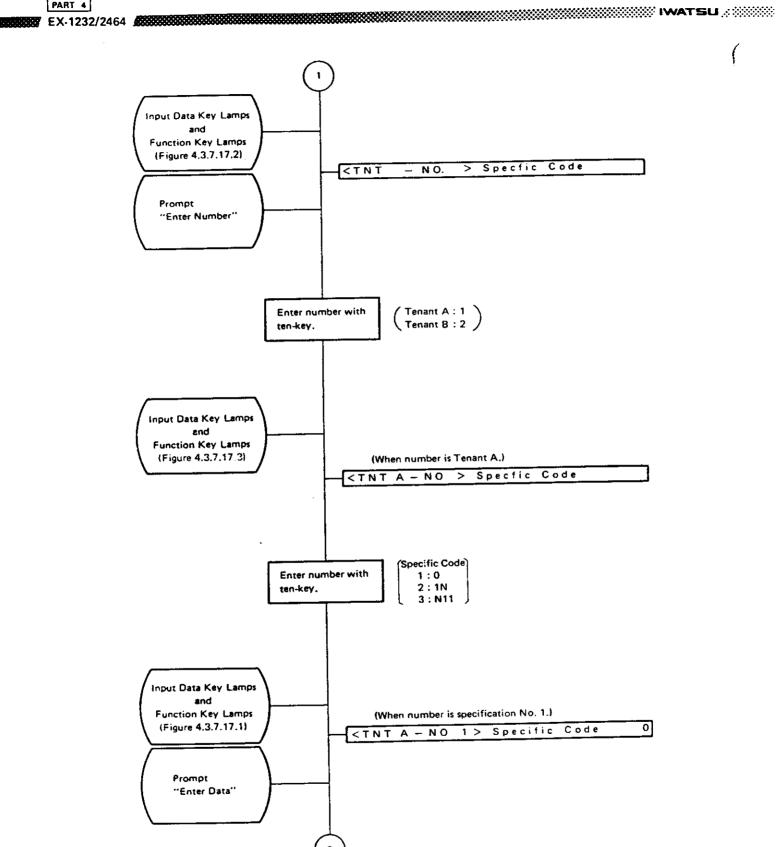


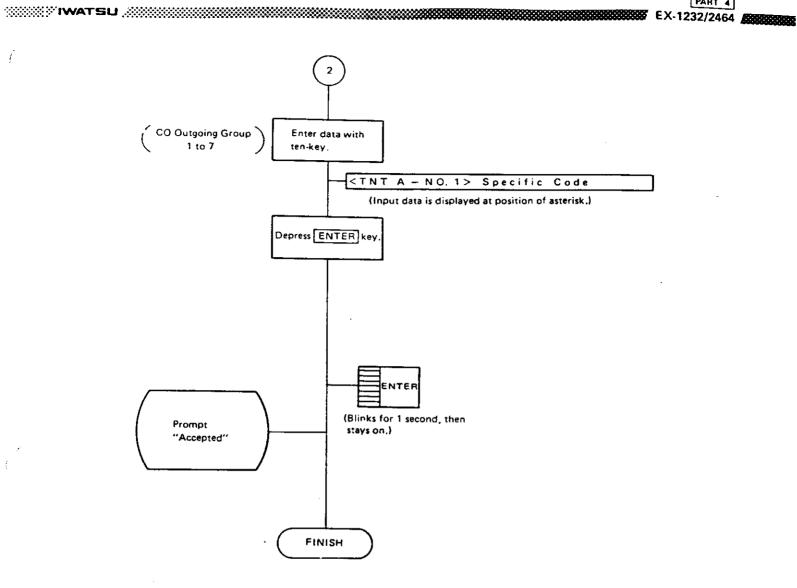
Figure 4.3.7.16.2

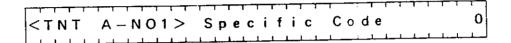
Feature: Setting CO Outgoing Group according to Tenant A/B and Specification No.





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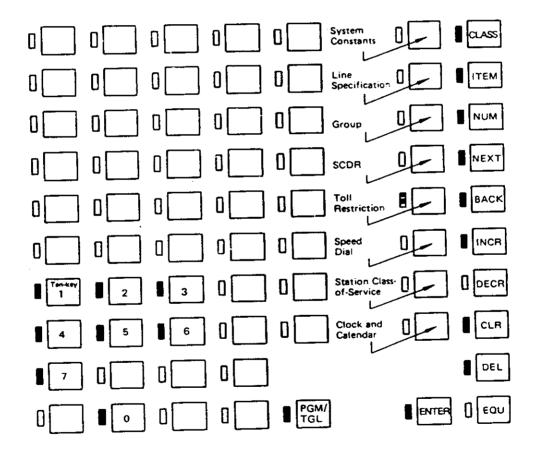


Figure 4.3.7.17.1

<TNT -NO> Specific Code

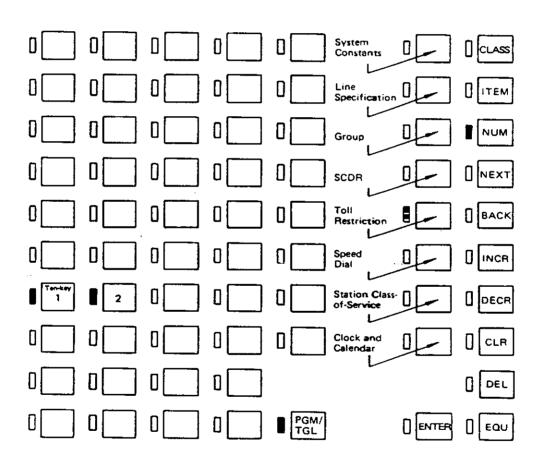


Figure 4.3.7.17.2

Specific Code <TNT A - NO

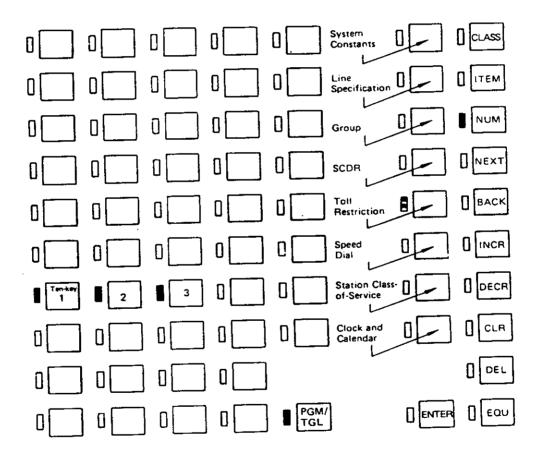
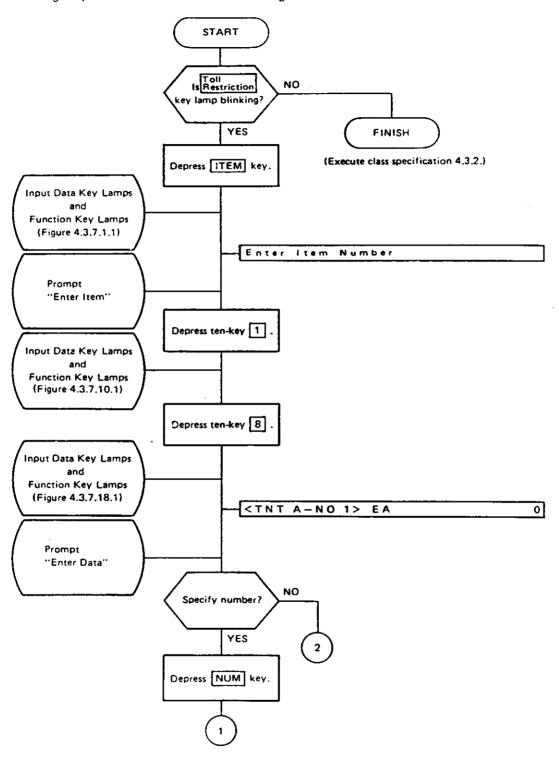
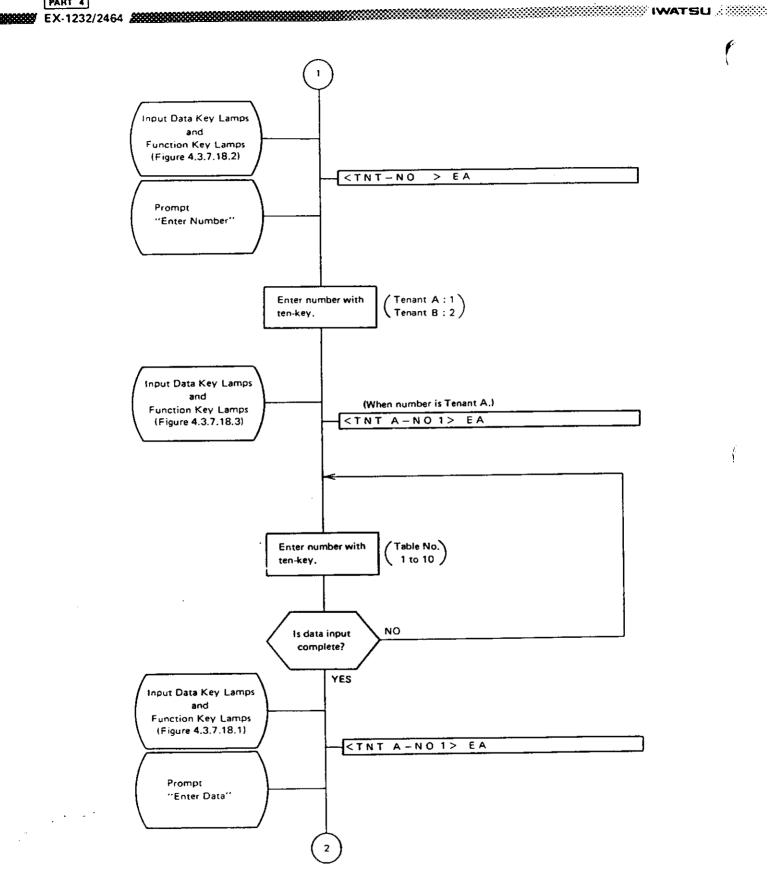


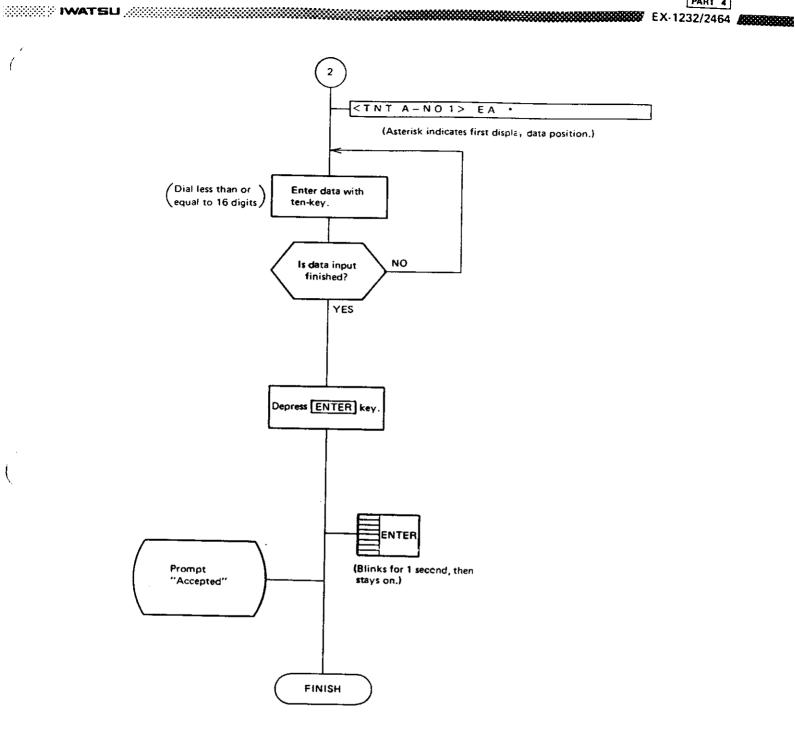
Figure 4.3.7.17.3

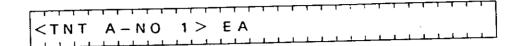
4.3.7.18 Equal Access Code Table (Item 18)

Feature: Setting Equal Access Code Dial according to Tenant A/B and Table No.









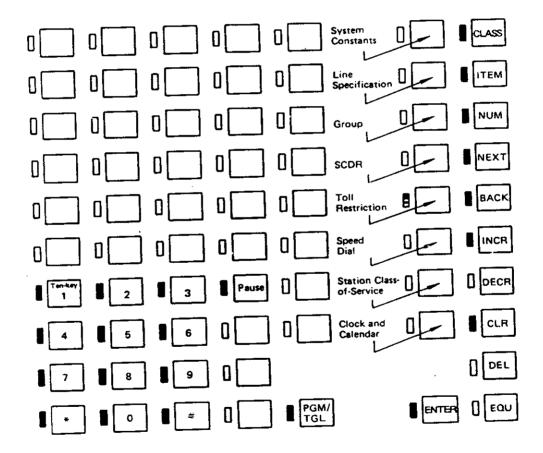
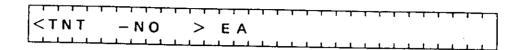


Figure 4.3.7.18.1



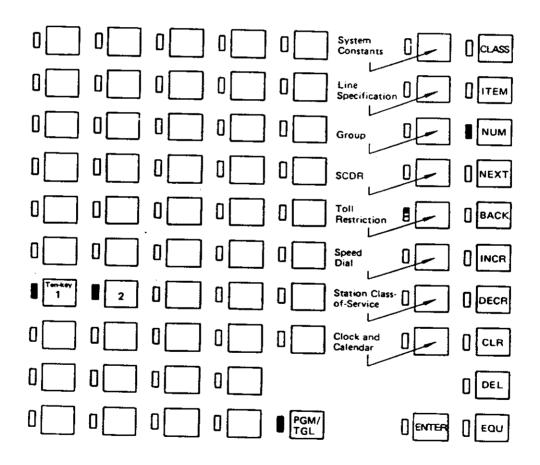


Figure 4.3.7.18.2

ΕA *< TNTA - NO

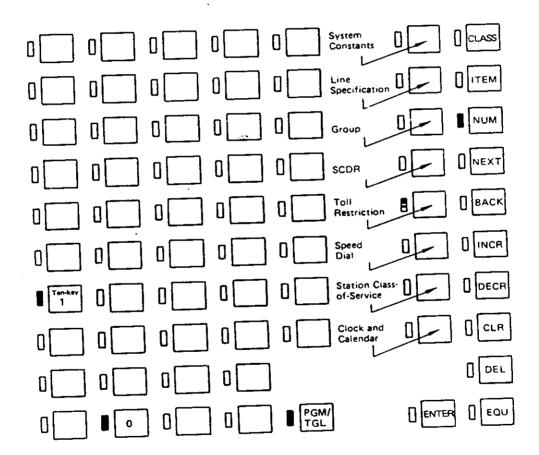
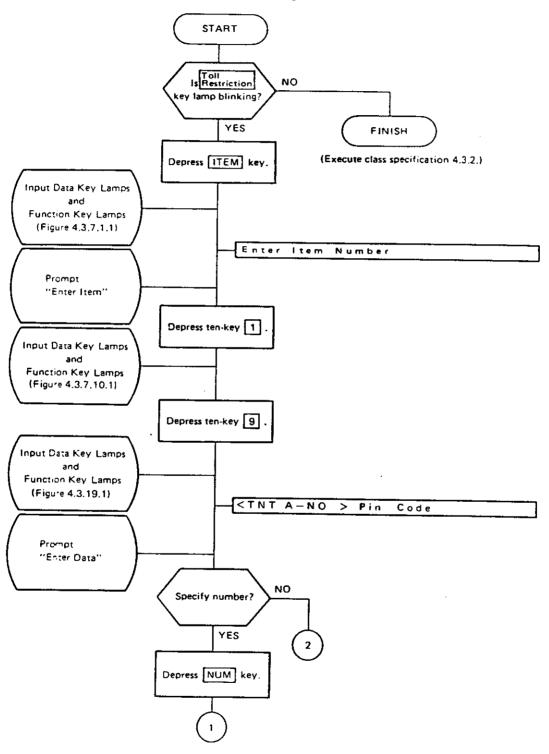
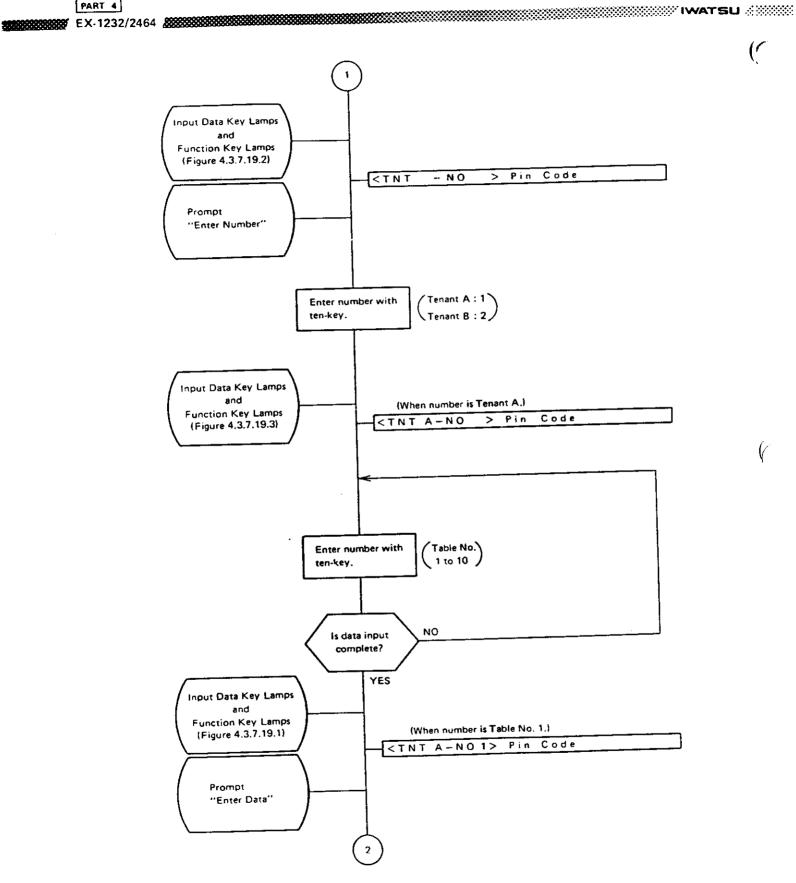


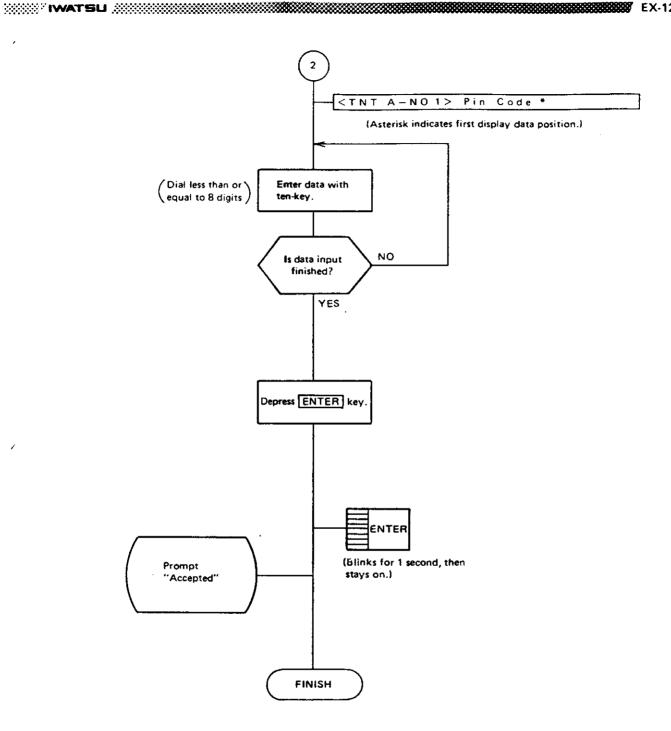
Figure 4.3.7.18.3

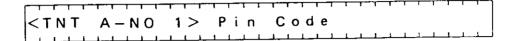
4.3.7.19 Equal Access Pin Code Table (Item 19)

Feature: Setting Equal Access Pin Code Dial according to Tenant A/B Table No.









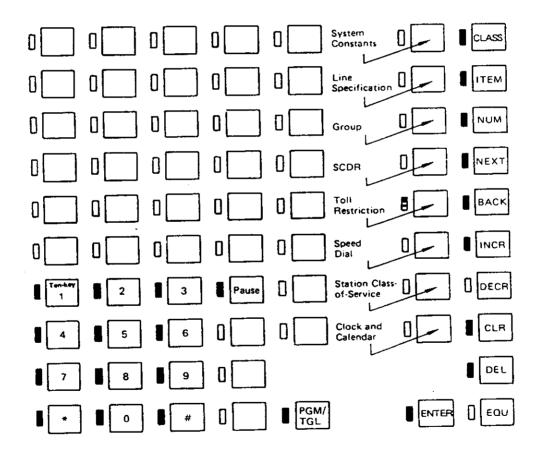


Figure 4.3.7.19.1

<TNT -NO > Pin Code

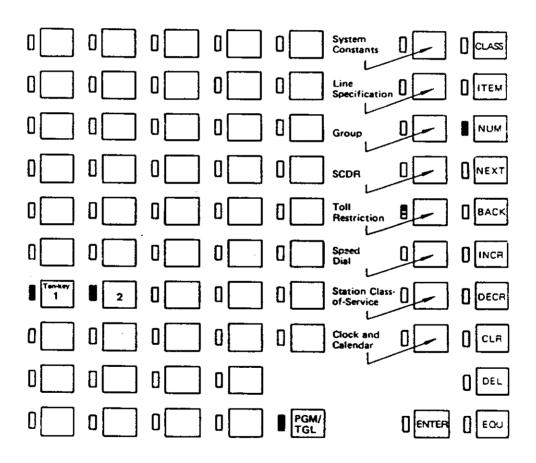


Figure 4.3.7.19.2

<TNT A-NO > Pin Code

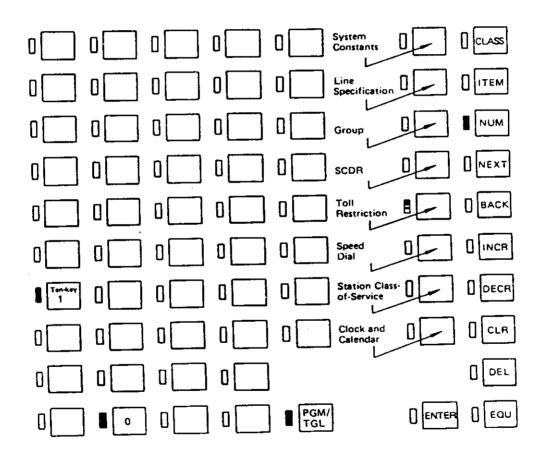
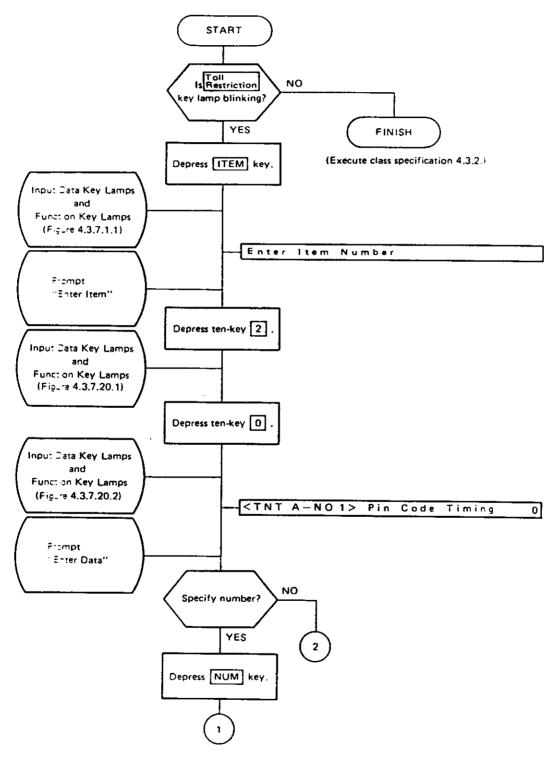
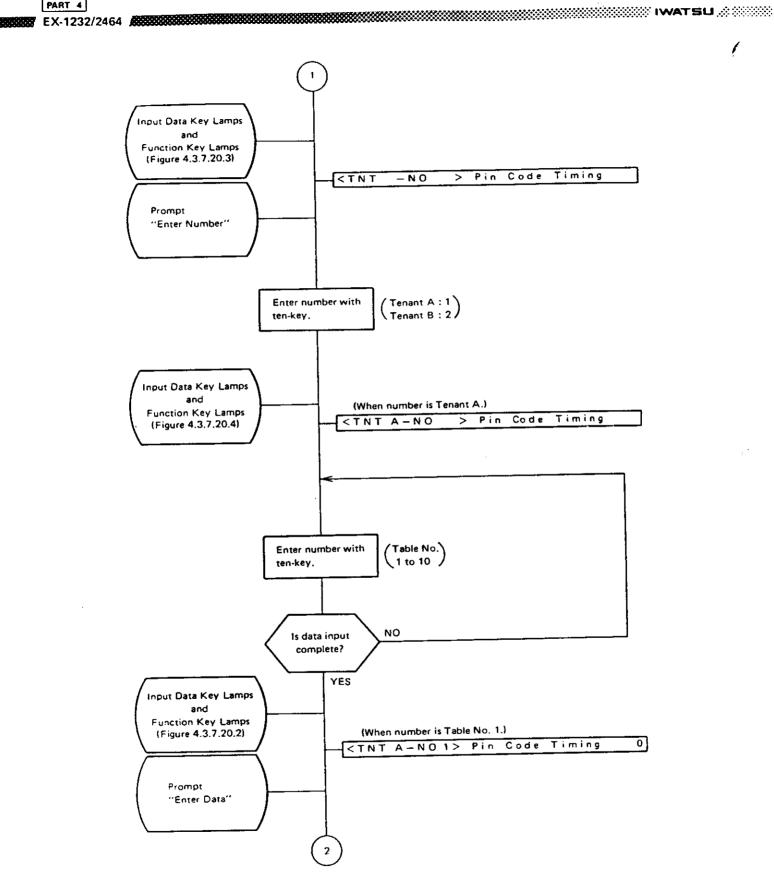


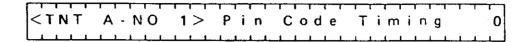
Figure 4.3.7.19.3

4.3.7.20 Equal Access Pin Code Timing Table (Item 20)

Setting Equal Access Pin Code Timing according to Tenant A/B and Table No. Feature:







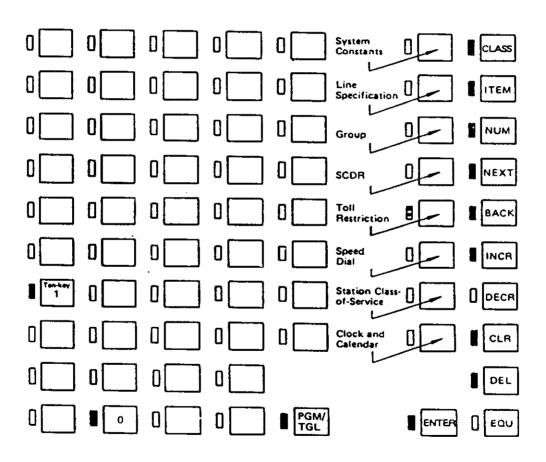
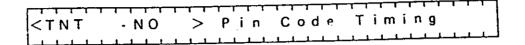


Figure 4.3.7.20.2





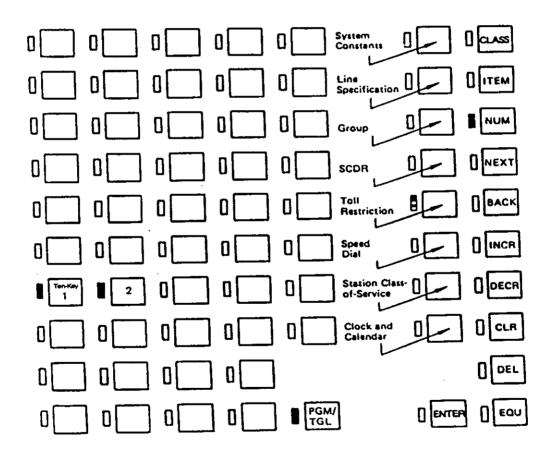
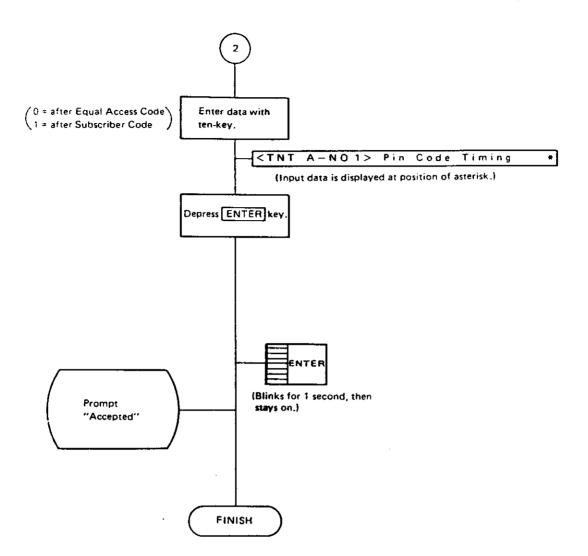


Figure 4.3.7.20.3



Enter Item Number

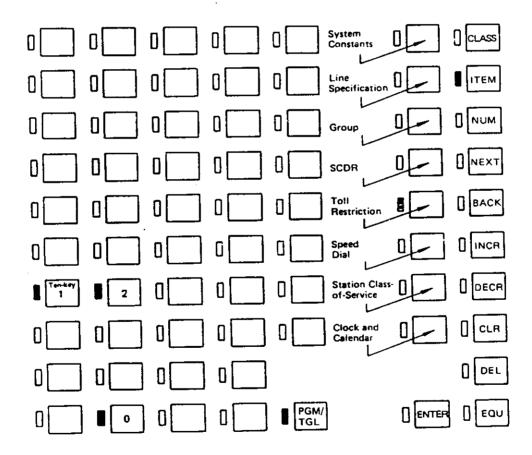
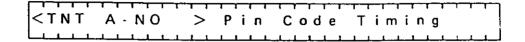


Figure 4.3.7.20.1



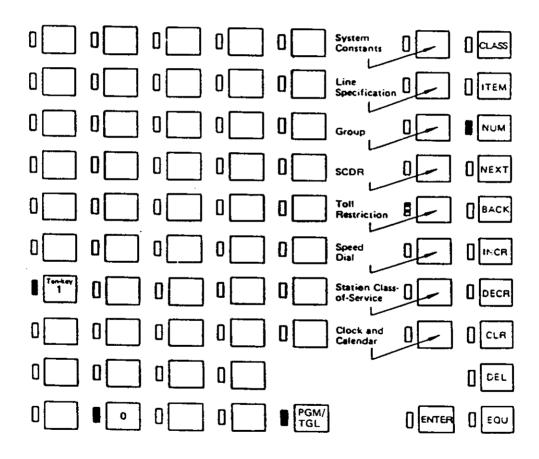
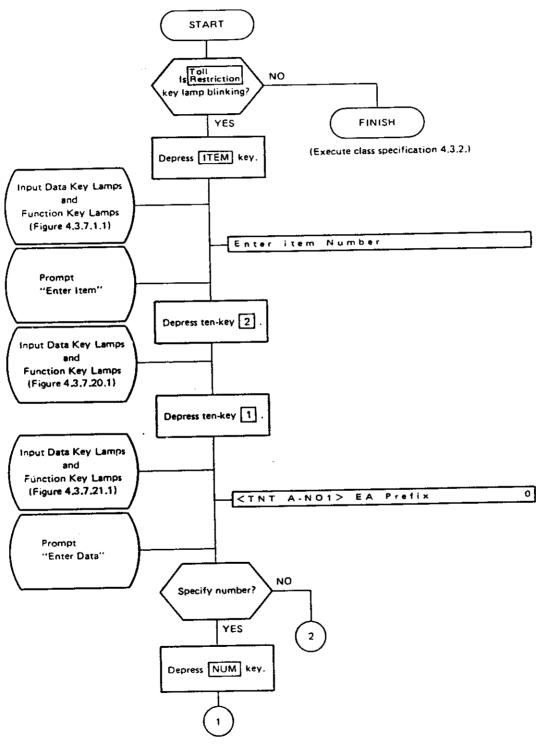
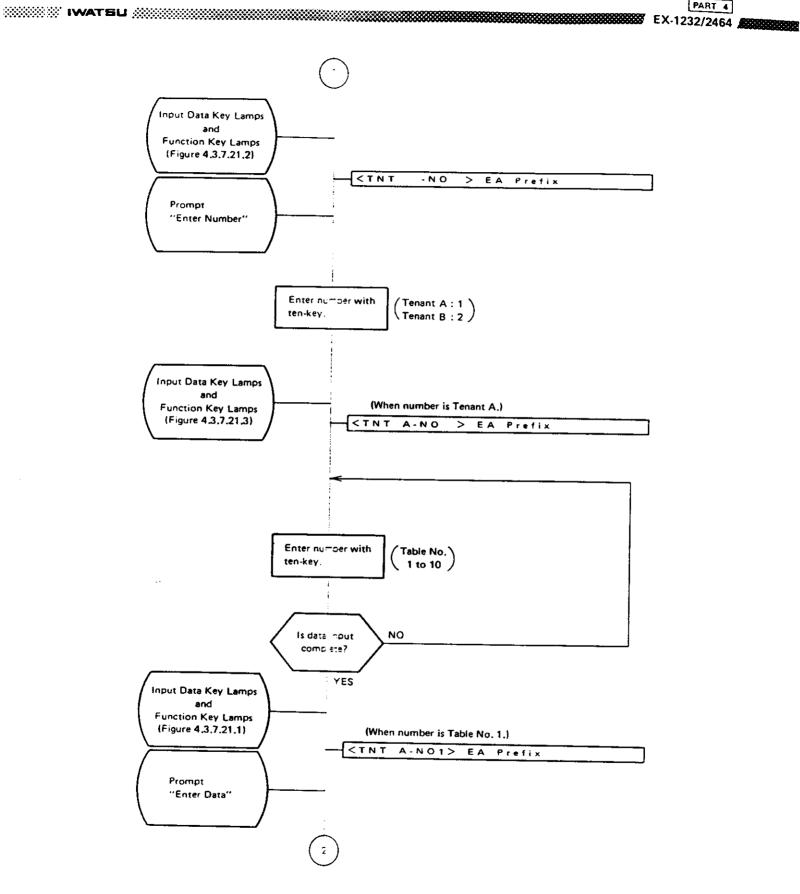


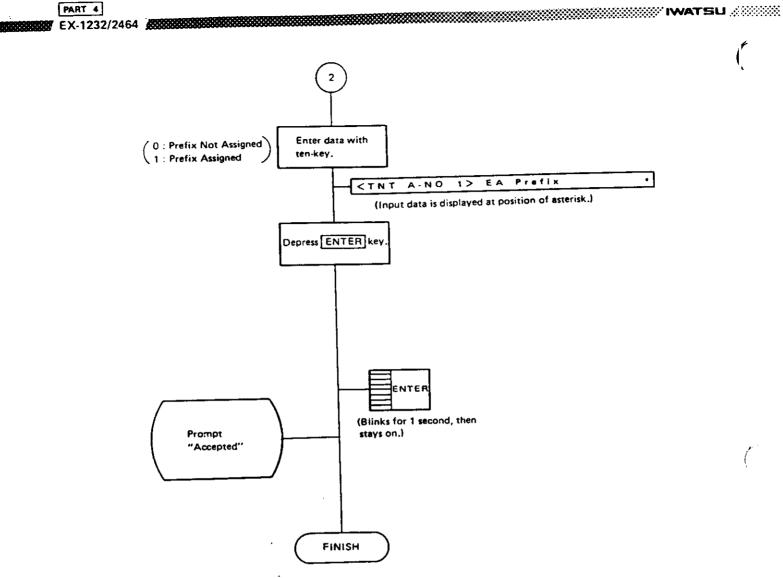
Figure 4.3.7.20.4

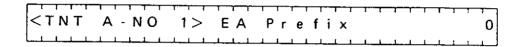
Equal Access Prefix Information (Item 21) 4.3.7.21

Setting Equal Access Prefix Information according to Tenant A/B and Table No. Feature:









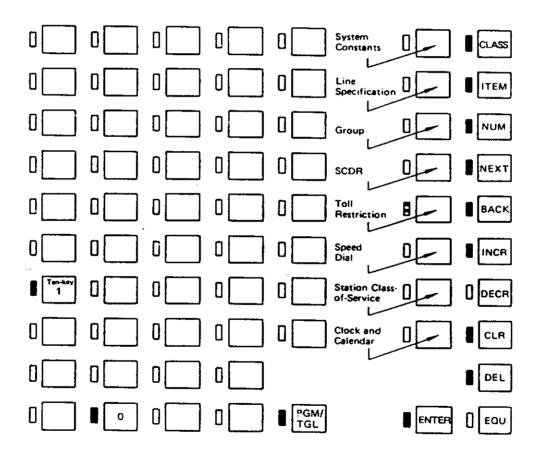


Figure 4.3.7.21.1

Prefix > E A - NO < T N T

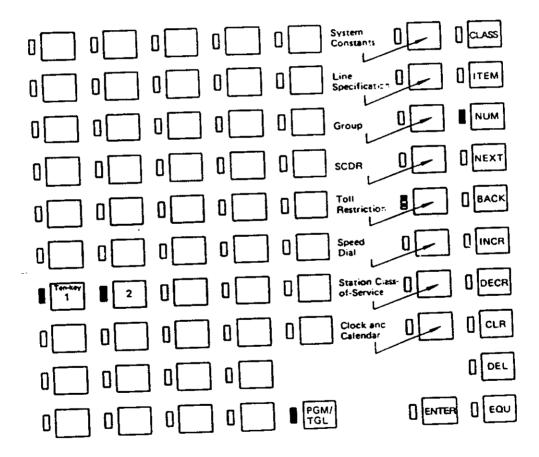


Figure 4.3.7.21.2



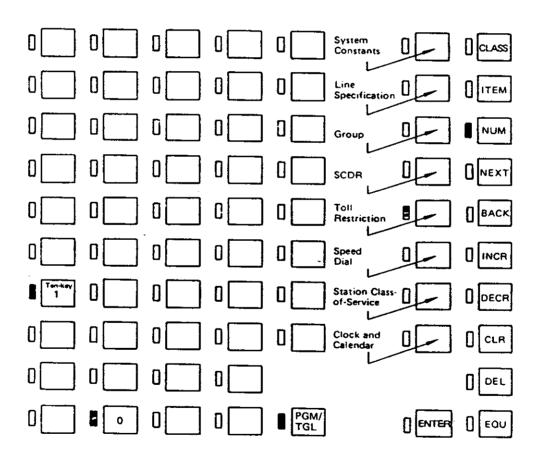
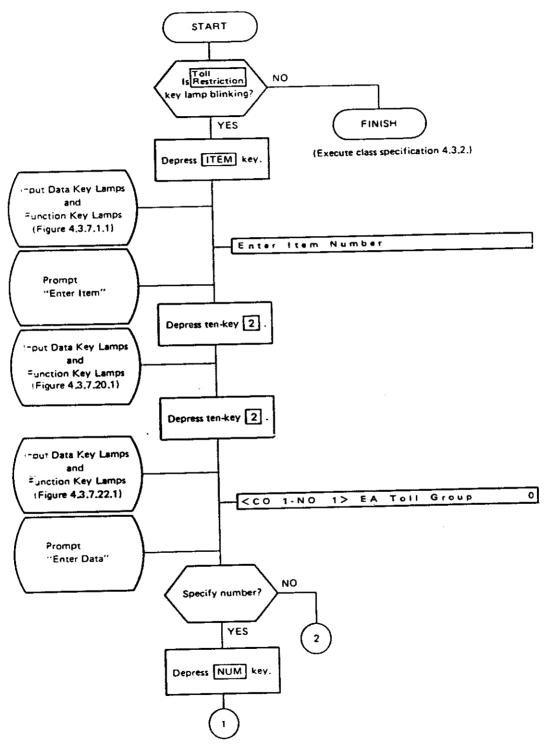
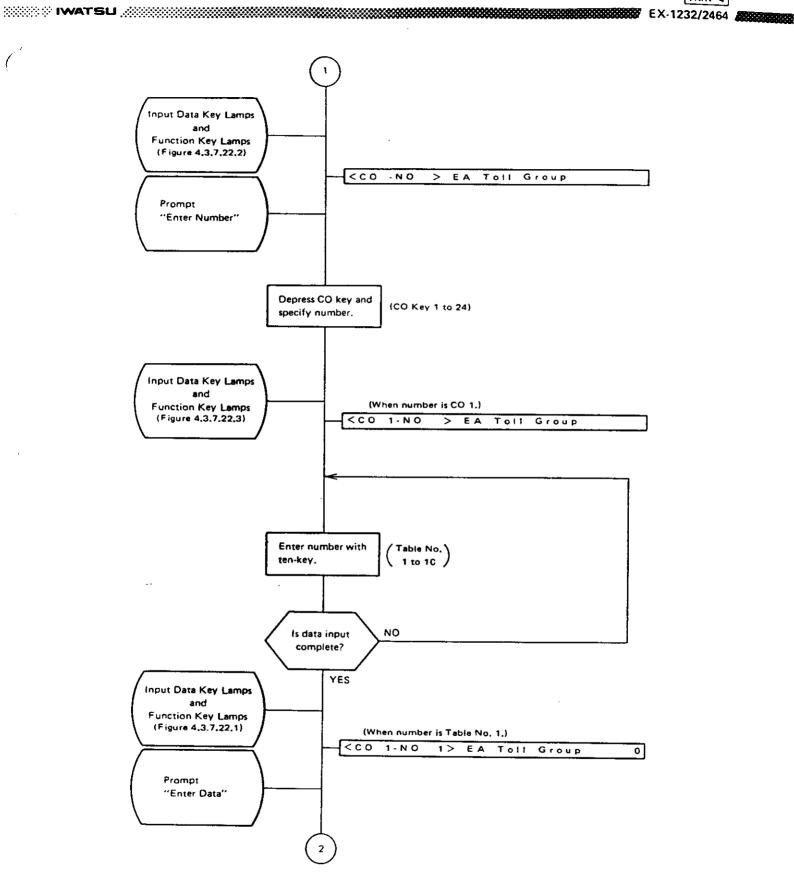


Figure 4.3.7.21.3

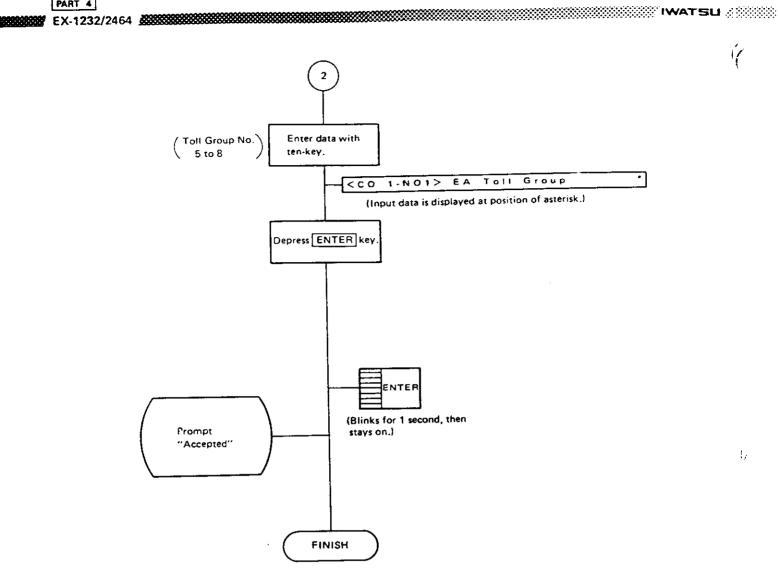
4.3.7.22 Equal Access Toll Group (Item 22)

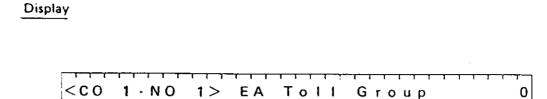
Feature: Setting Toll Restriction Group No. according to CO and Table No.





1,





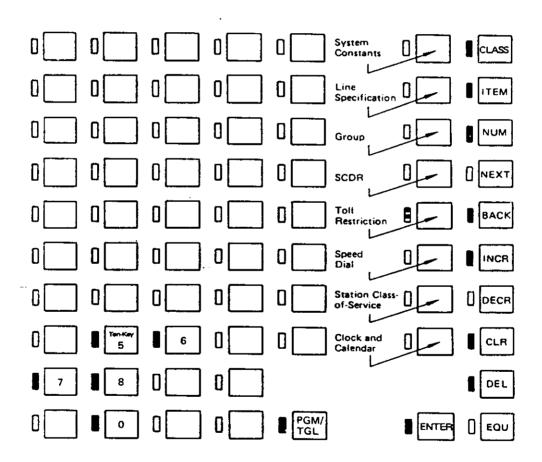
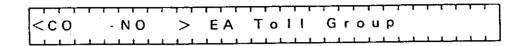
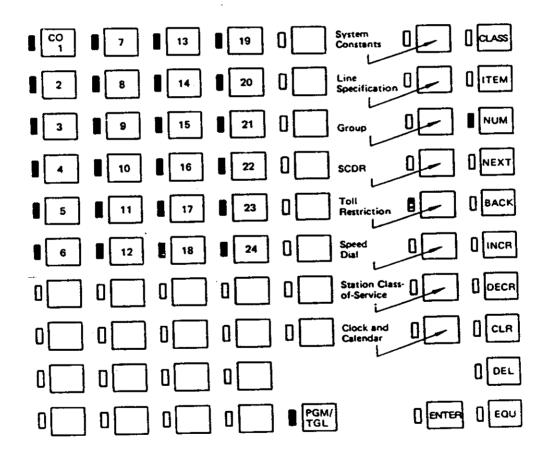


Figure 4.3.7.22.1





Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.7.22.2

<CO 1 - NO > EA Toll Group

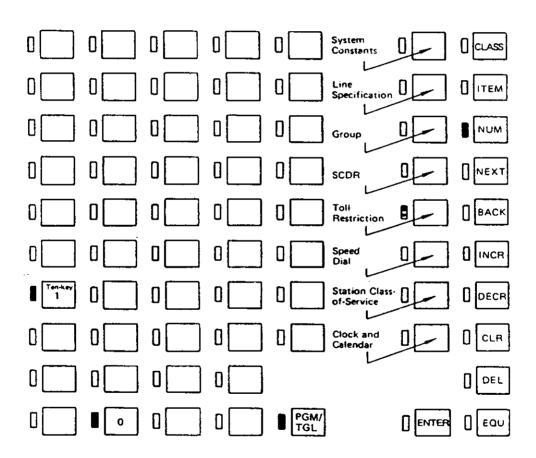


Figure 4.3.7.22.3

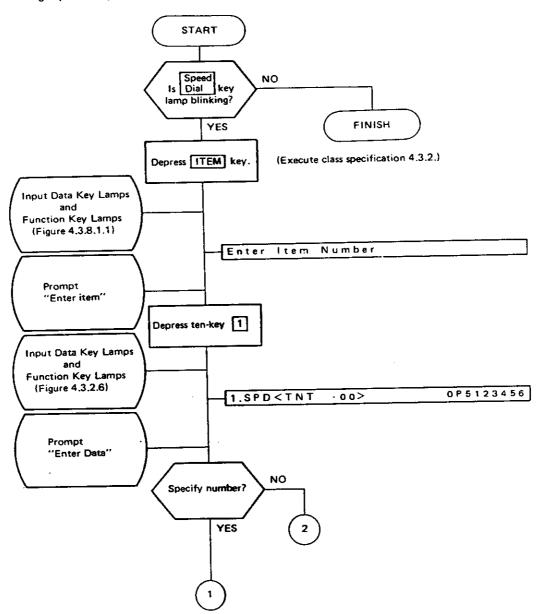
Programming of Speed Dial 4.3.8

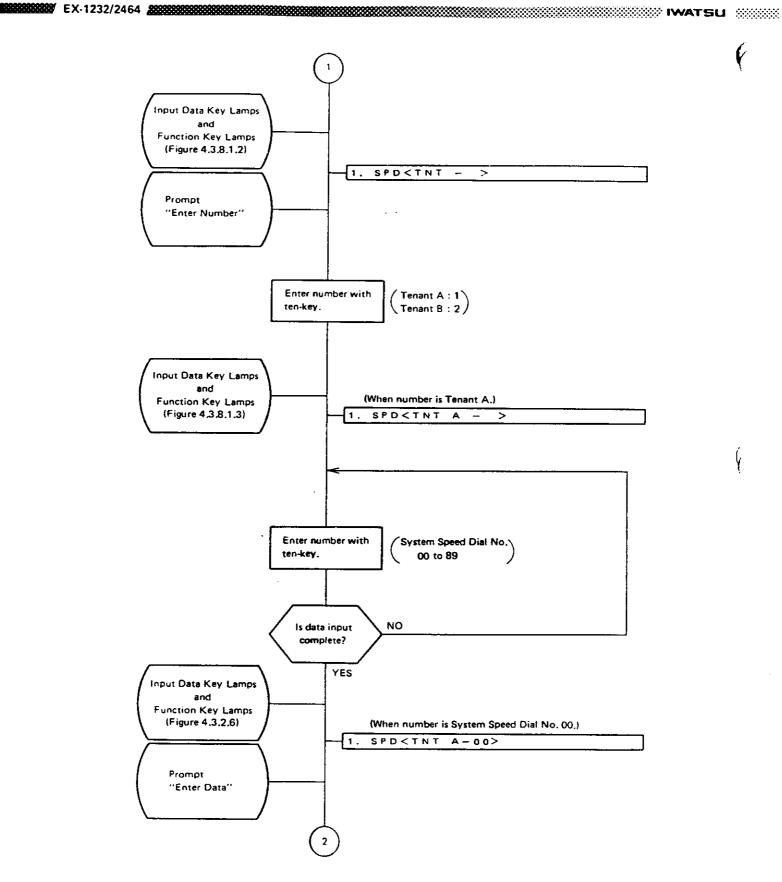
After Speed Dial Class is specified with the operation in Subsection 4.3.2, the following settings can be entered:

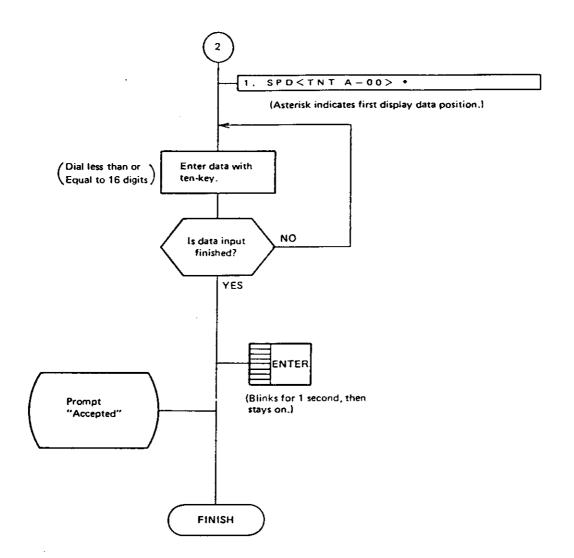
- System Speed Dial Item 1)
- System Speed Dial Invisible Item 2)
- Station Speed Dial Item 3)

4.3.8.1 System Speed Dial (Item 1)

Feature: Setting System Speed Dial







Enter ltem Number

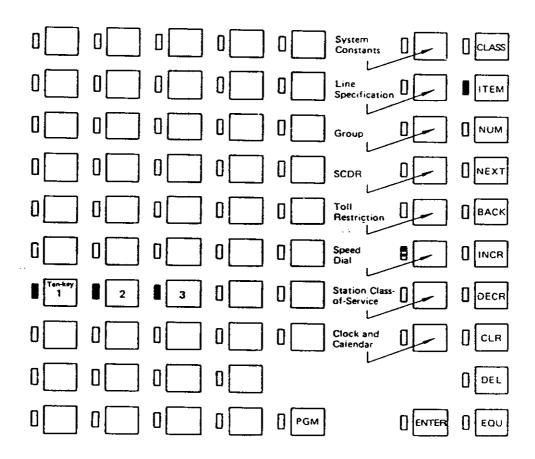
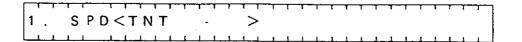


Figure 4.3.8.1.1

(



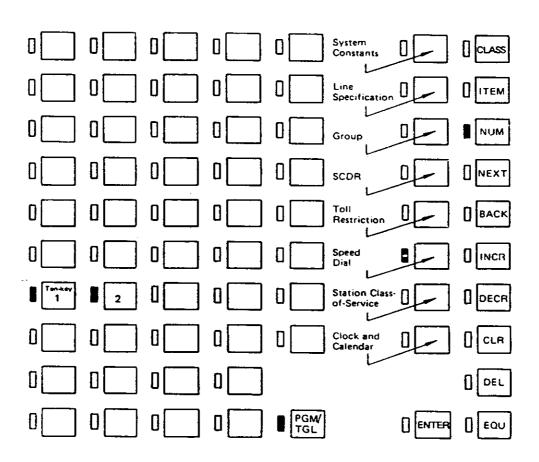


Figure 4.3.8.1.2

1.SPD<TNT A->

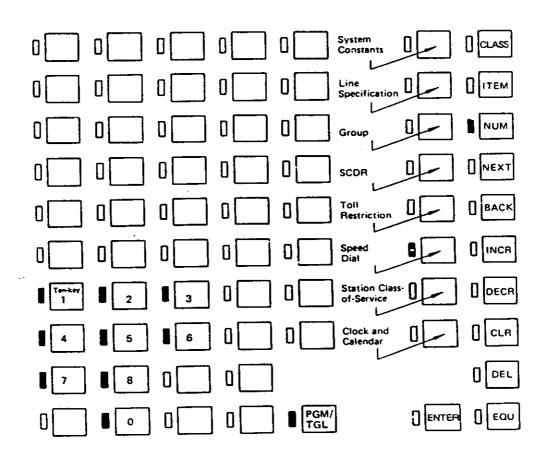
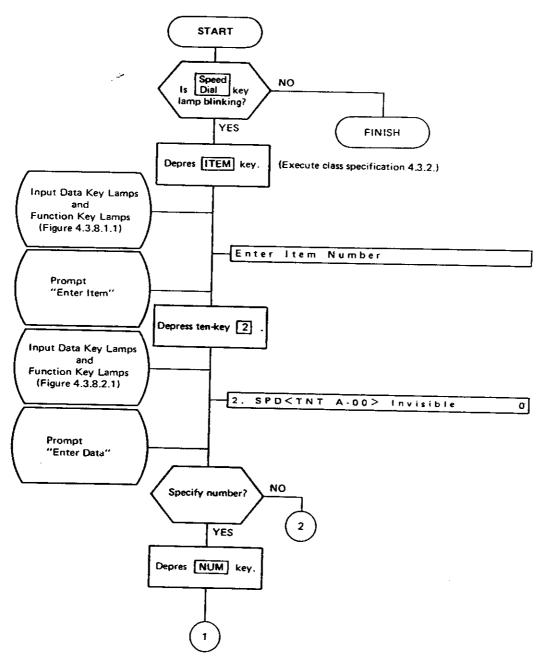
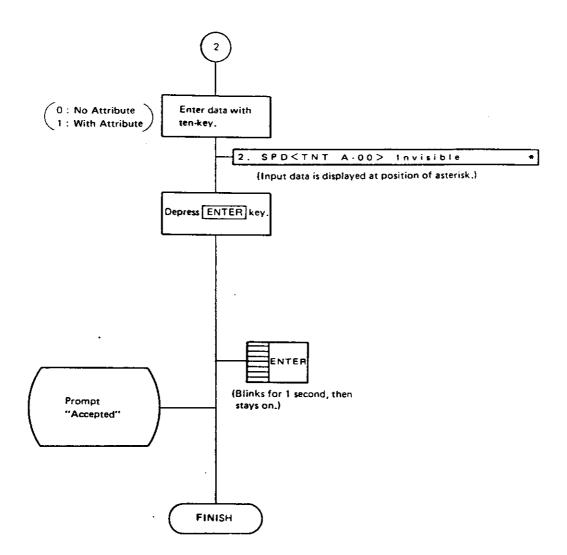


Figure 4.3.8.1.3

4.3.8.2 System Speed Dial Invisible (Item 2)

Features: Setting System Speed Dial Invisible attribute





2. SPD<TNT A-00 > Invisible 0

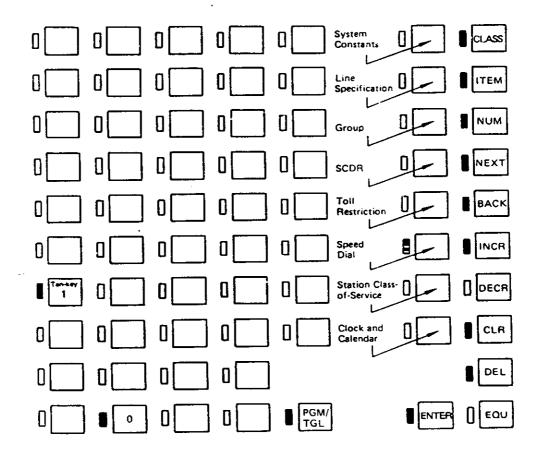


Figure 4.3.8.2.1

2.SPD<TNT - > Invisible

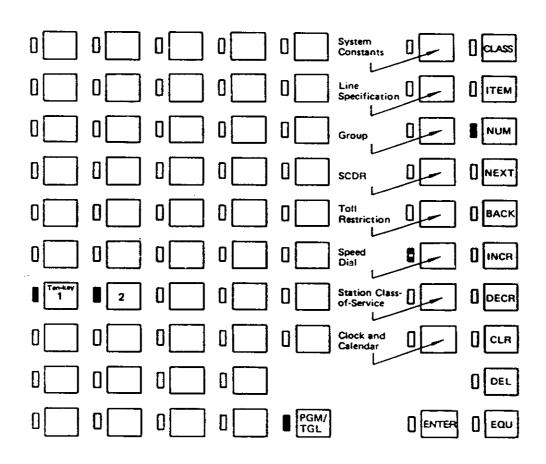


Figure 4.3.8.2.2

2.SPD < TNTΑ -> Invisible

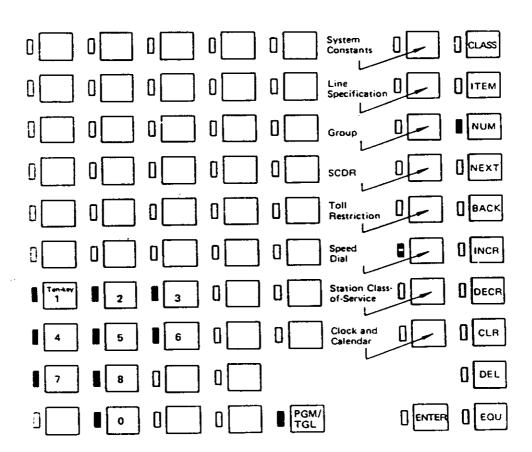
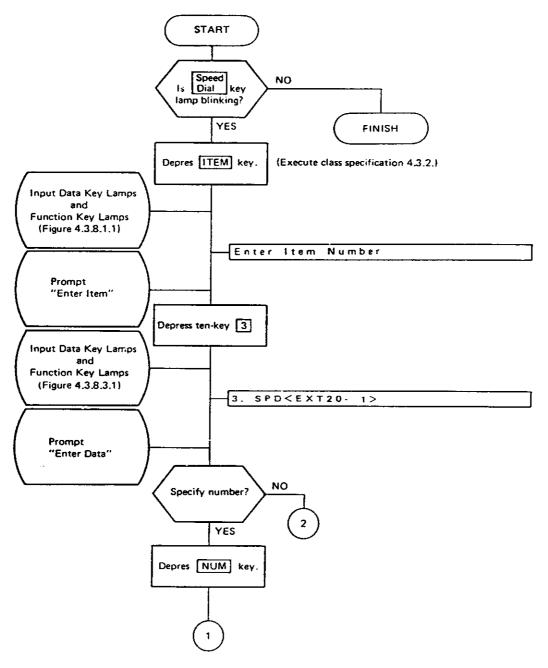
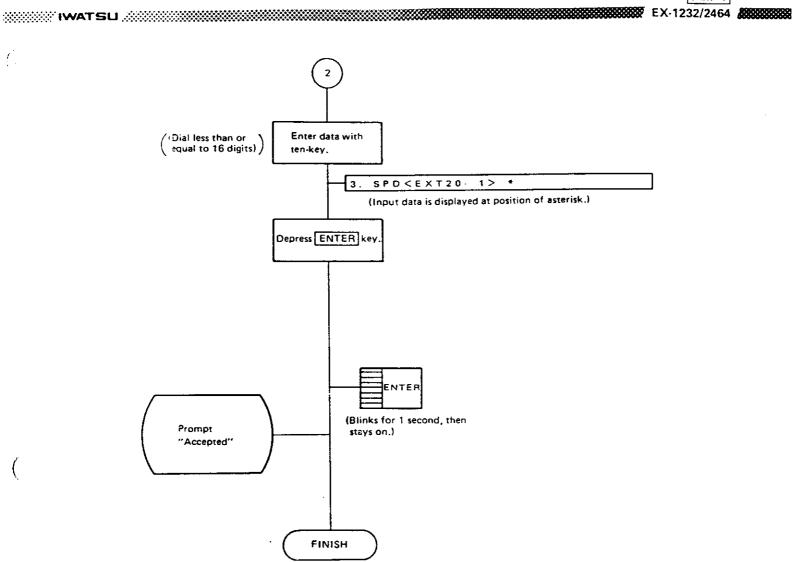


Figure 4.3.8.2.3

4.3.8.3 Station Speed Dial (Item 3)

Feature: Setting Station Speed Dial





3 . S P D < E X T 2 0 -1 >

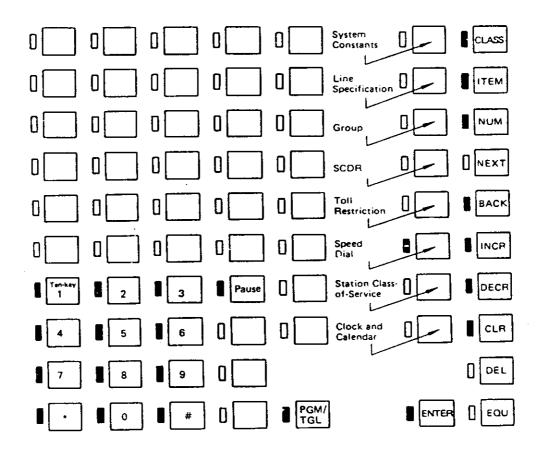
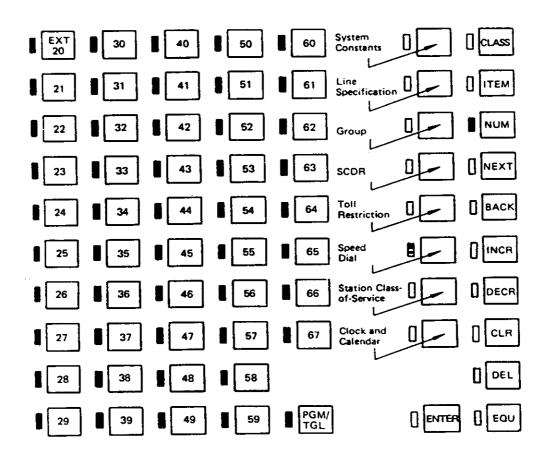


Figure 4.3.8.3.1

3. SPD < EXT - >

Key Lamp



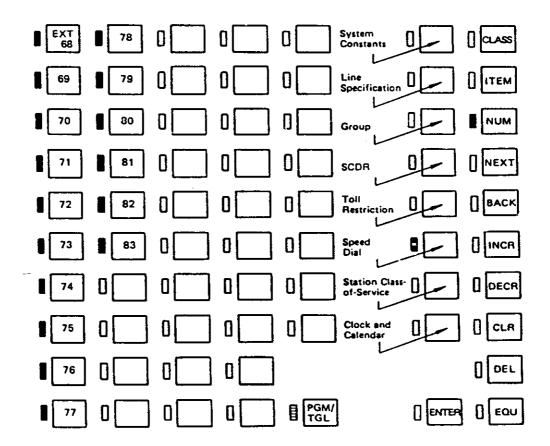
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.8.3.2.a

3 . S P D < E X T >

Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.8.3.2.b

3 . S P D < E X T 2 0 - >

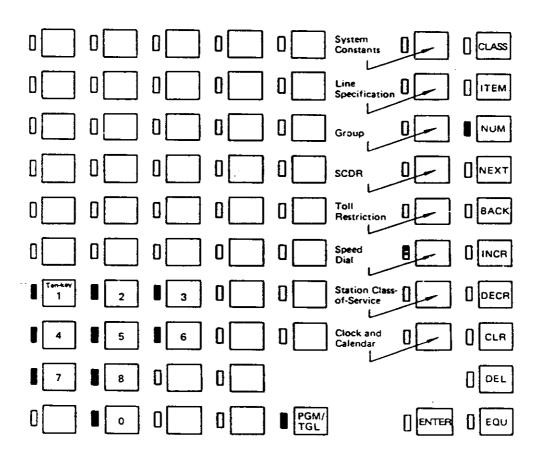


Figure 4.3.8.3.3

4.3.9 Programming of Station Class-of-Service

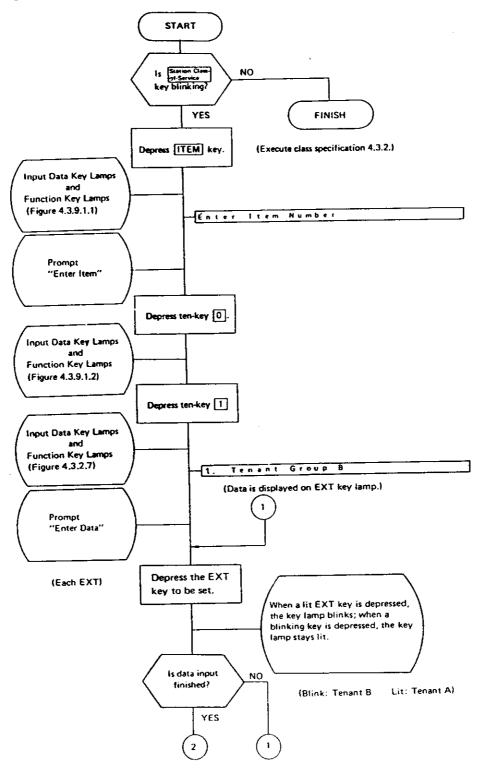
After Station Class-of-Service is specified with the operation in Subsection 4.3.2, the following settings can be entered:

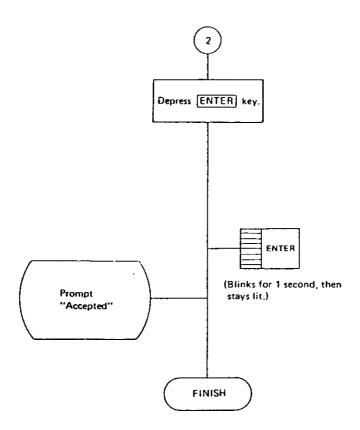
- Item 1) Tenant Group B
- Item 2) Secretary Atrribution
- Item 3) Protected Attribution
- Item 4) Executive Attribution
- Item 5) Versa Phone Attribution
- Item 6) Busy Call Forward
- Item 7) Message Attribution
- Item 8) Quick Mode Deny
- Item 9) Off-Hook Signal Deny
- Item 10) Off-Hook All-Call Deny
- Item 11) All-Call Deny
- Item 12) Hold Recall Deny
- Item 13) Speed Dial Access Deny
- Item 14) Toll Speed Dial Access Deny
- Item 15) CO Automatic Answer Deny
- Item 16) ICM Automatic Answer Deny
- Item 17) Paging Call Access Deny
- Item 18) Call Forward Deny
- Item 19) Do Not Disturb Deny
- Item 20) Optimized Call Routing Access Deny
- Item 21) Equal/SCC Access Deny
- Item 22) Toll Dial Class of Restriction
- Item 23) CO Outgoing Level
- Item 24) Route Advance Step
- Item 25) Pickup Restriction
- Item 26) KT Key Assignment
- Item 27) Personal ID Code

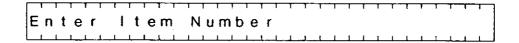
When system data (Station Class-of Service) of a busy EXT is renewed (ENTER key is depressed), the EXT is disconnected automatically.

4.3.9.1 Tenant Group (Item 1)

Feature: Setting Tenant for each EXT







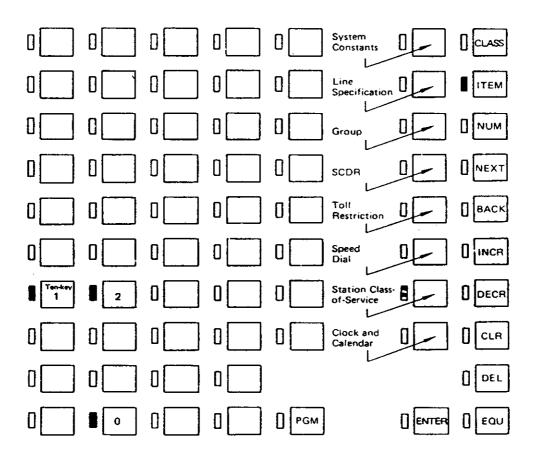


Figure 4.3.9.1.1

Enter I tem Number

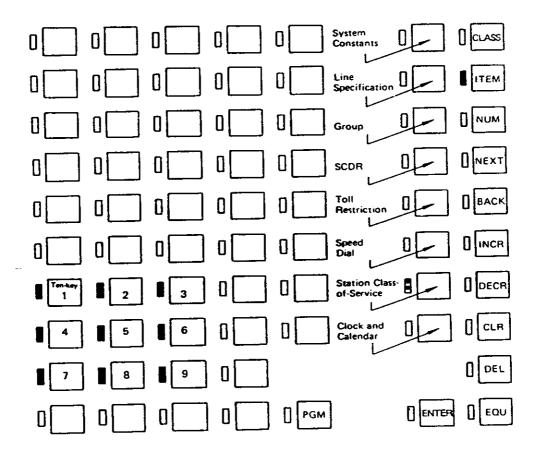
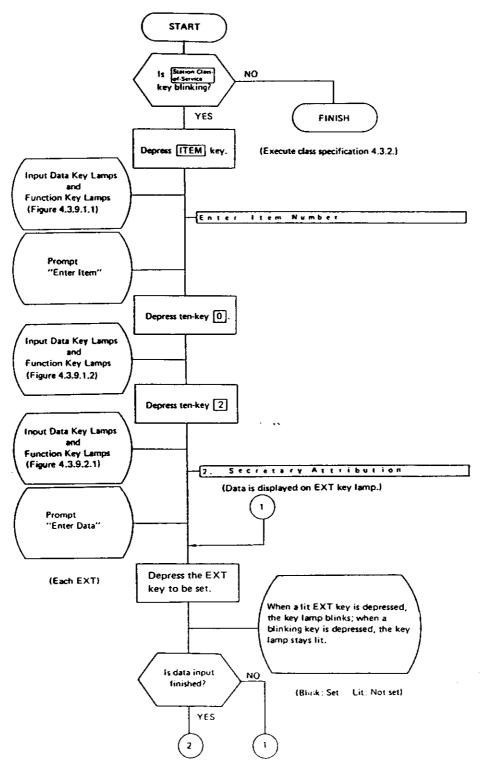
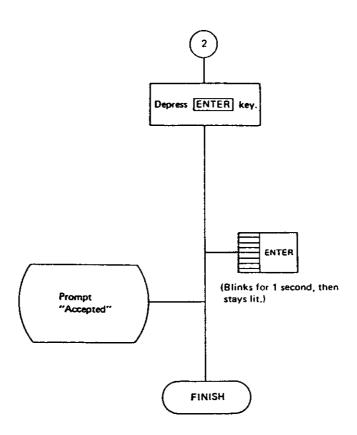


Figure 4.3.9.1.2

4.3.9.2 Secretary Attribution (Item 2)

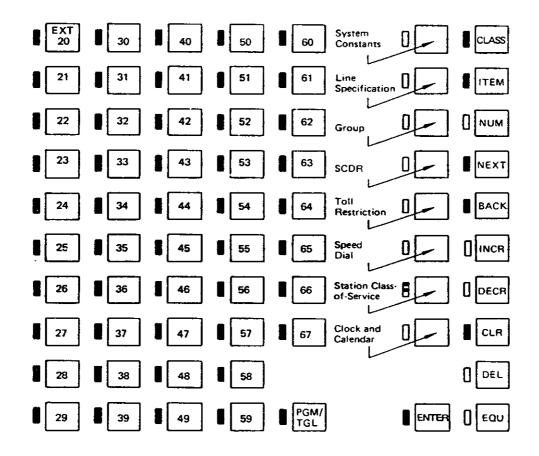
Feature: Setting Secretary Attribute for each EXT





2. Secretary Attribution

Key Lamp



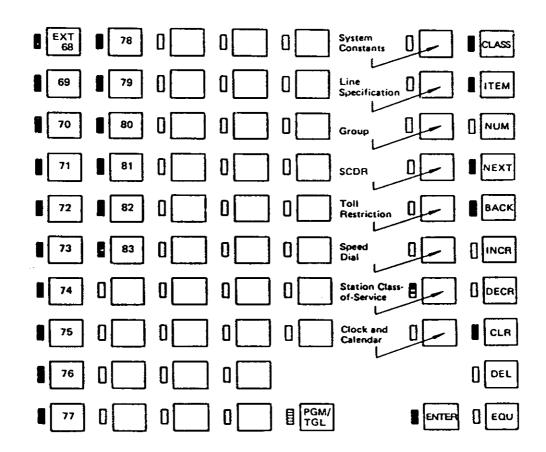
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.9.2.1.a

2 Secretary Attribution

Key Lamp

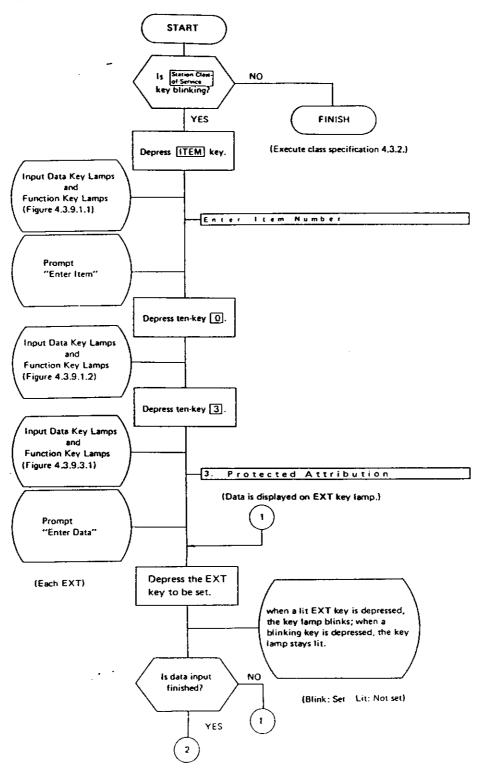


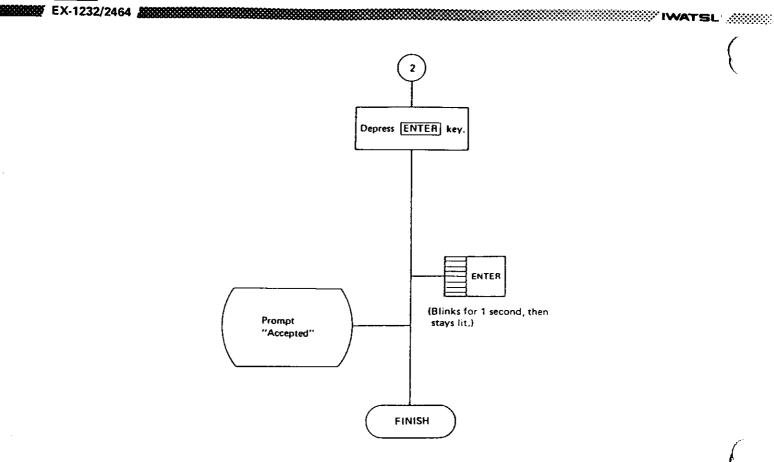
Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.9.2.1.b

4.3.9.3 Protected Attribution (Item 3)

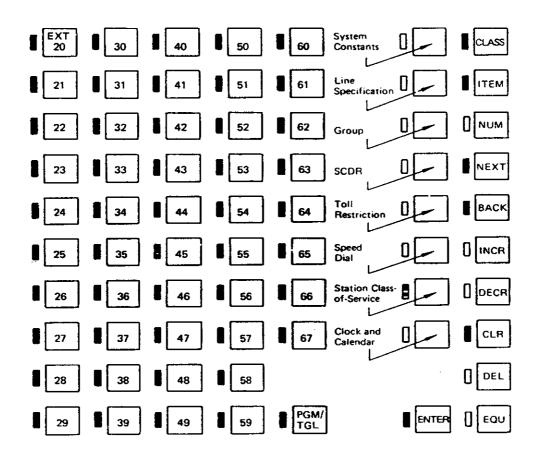
Feature: Setting Protected Attribute for each EXT





3. Protected Attribution

Key Lamp



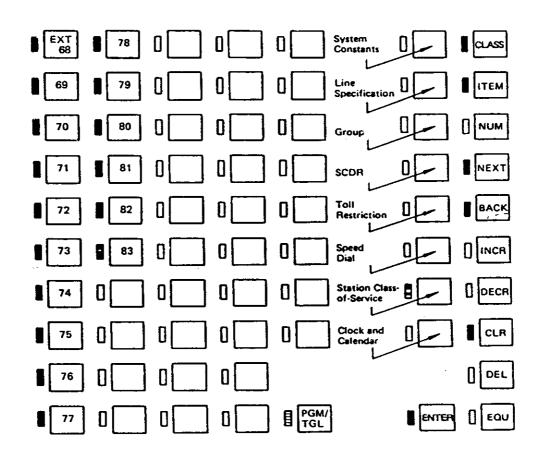
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.9.3, 1,a

3. Protected Attribution

Key Lamp



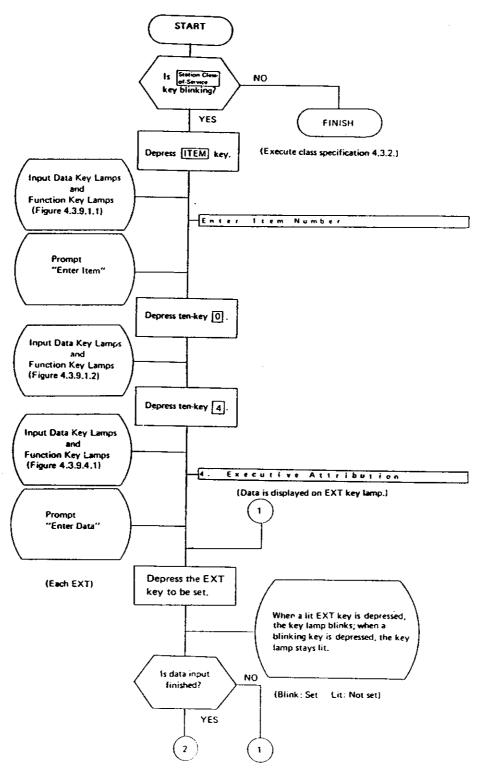
Note: Data is indicated on the key lamp assigned to the EXT key.

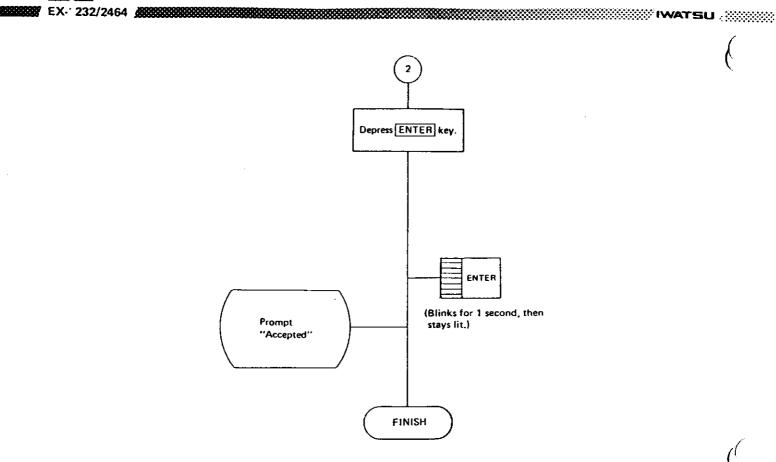
Key lamp indications are applicable to the reverse-side mode of the input data keys.

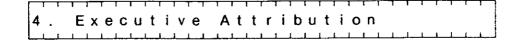
Figure 4.3.9.3.1.b

4.3.9.4 Executive Attribution (Item 4)

Feature: Setting Versaphone Attribute for each EXT







Key Lamp

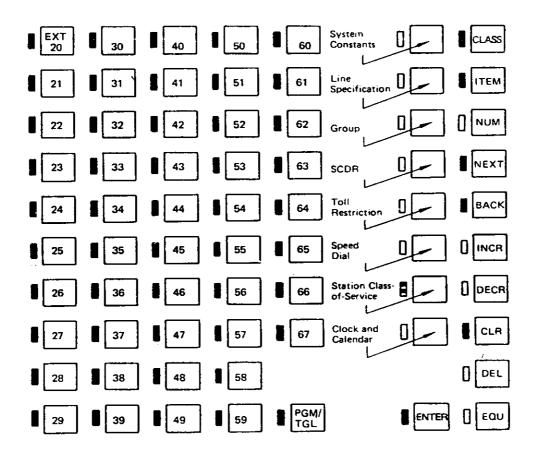


Figure 4.3.9.4.1.a

Executive Attribution

Key Lamp

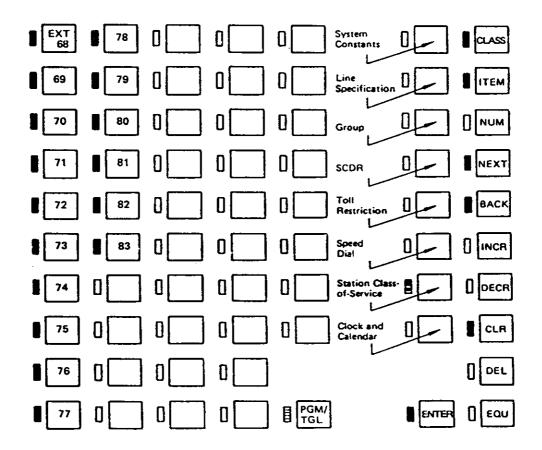
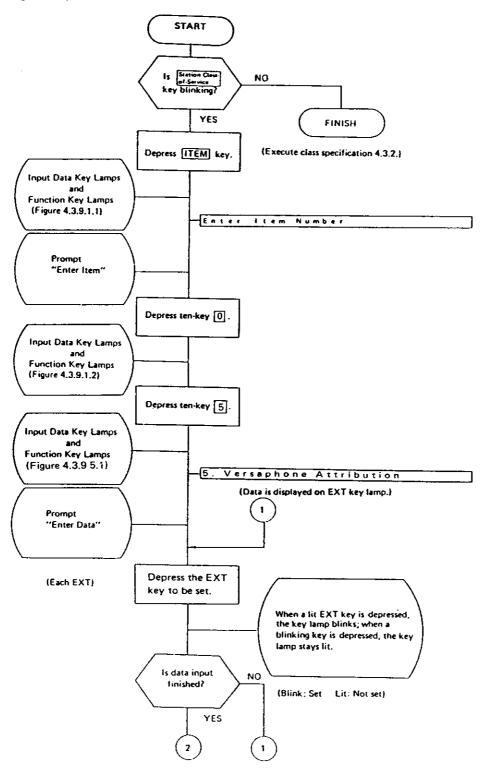
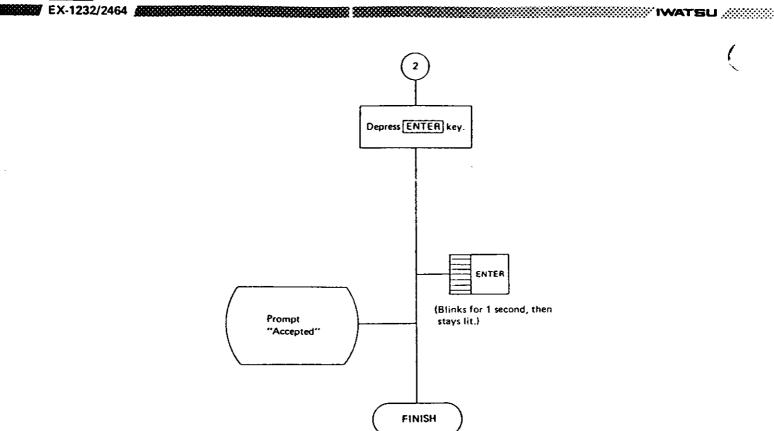


Figure 4.3.9.4.1.b

4.3.9.5 Versa Phone Attribution (Item 5)

Feature: Setting Versaphone Attribute for each EXT





Versaphone Attribution

Key Lamp

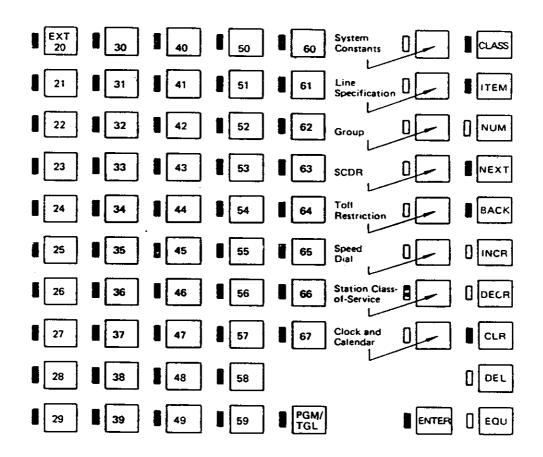


Figure 4.3.9.5.1.a

Attribution Versaphone 5

Key Lamp

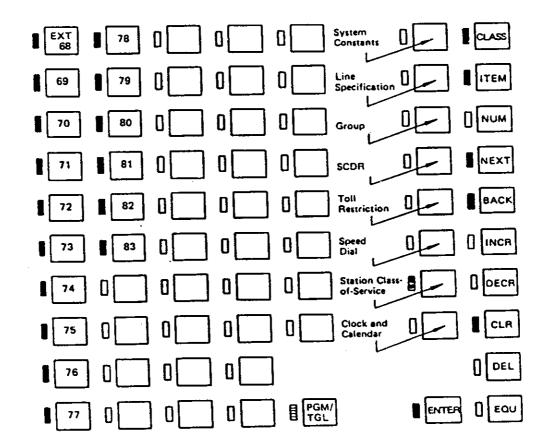
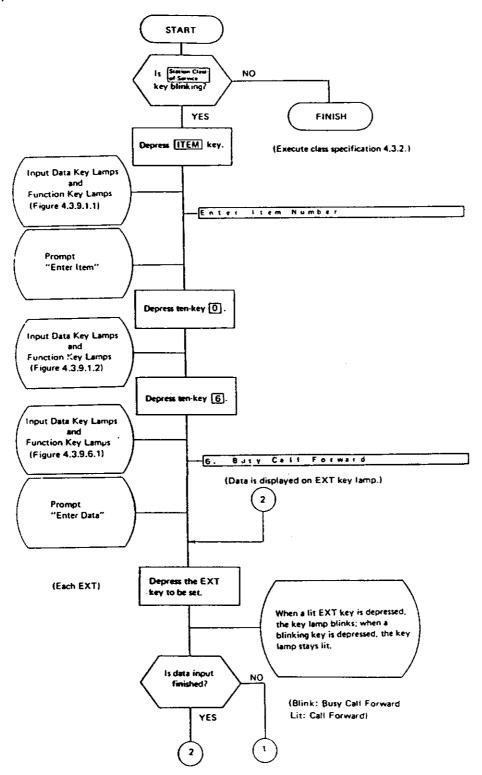
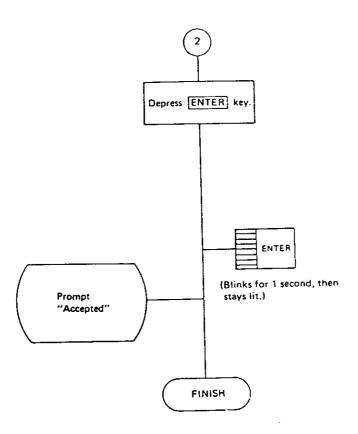


Figure 4.3.9.5.1.b

4.3.9.6 Busy Call Forward (Item 6)

Feature: Busy Call Forward for each EXT





6. Busy Call Forward

Key Lamp

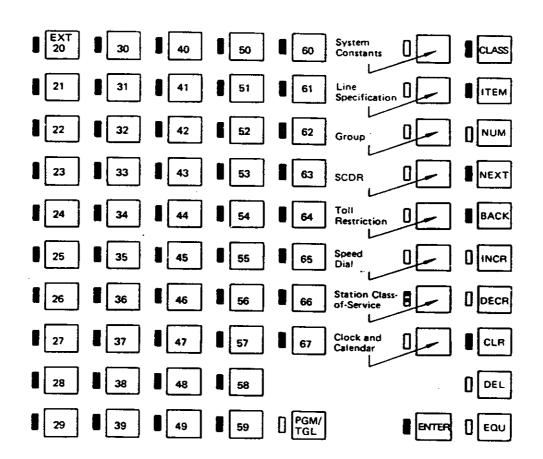


Figure 4.3.9.6.1.a



Key Lamp

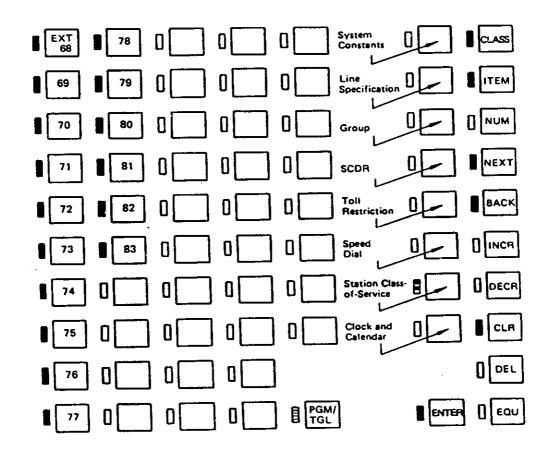
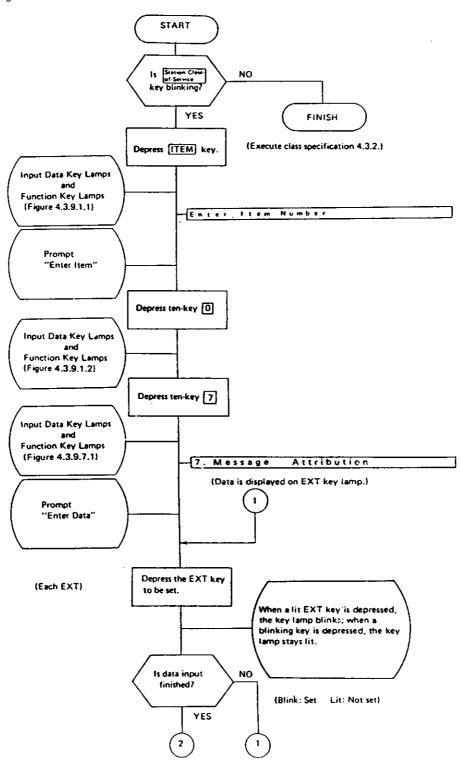
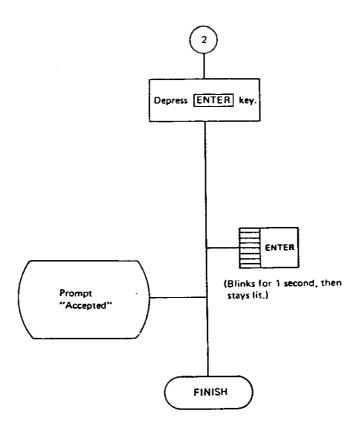


Figure 4.3.9.6.1.b

4.3.9.7 Message Attribution (Item 7)

Feature: Setting Mail Class Attribution for each EXT





7. Message Attribution

Key Lamp

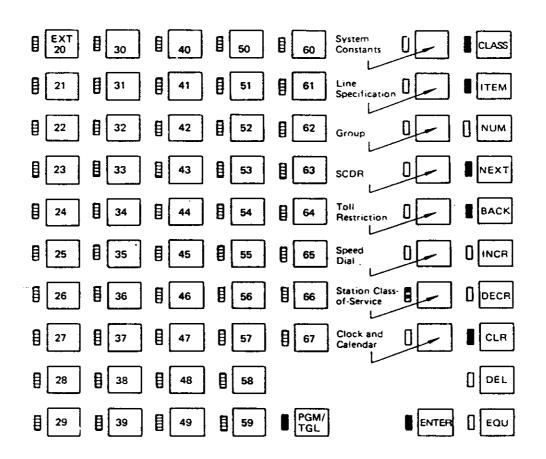


Figure 4.3.9.7.1.a

Attribution Message

Key Lamp

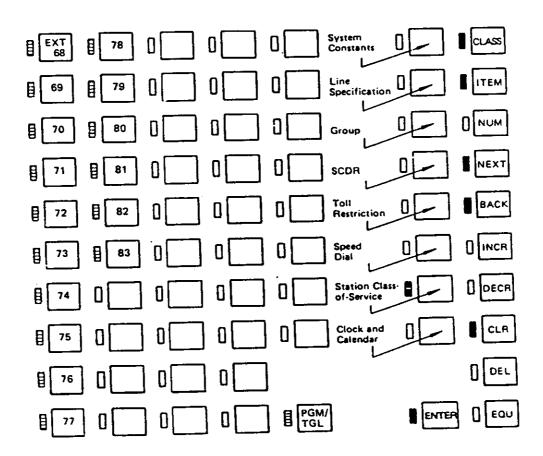
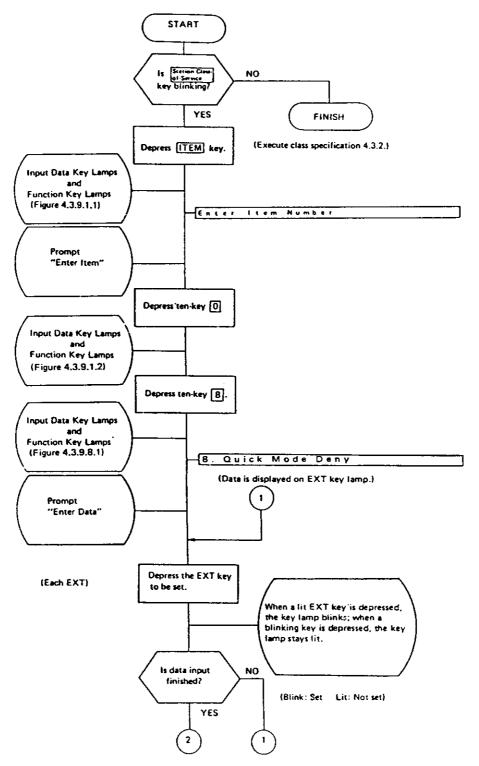
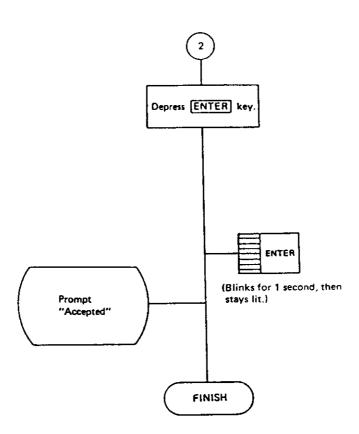


Figure 4.3.9.7.1.b

4.3.9.8 Quick Mode Deny (Item 8)

Feature: Setting Quick Mode Deny for each EXT





8. Quick Mode Deny

Key Lamp

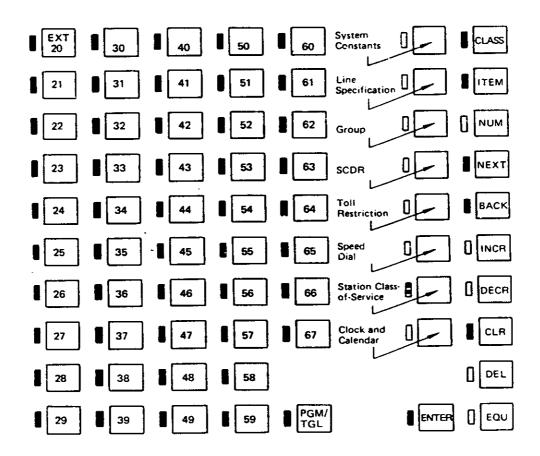


Figure 4.3.9.8.1.a

8. Quick Mode Deny

Key Lamp

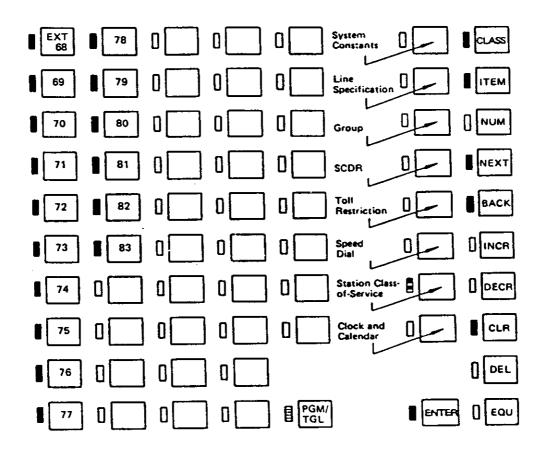
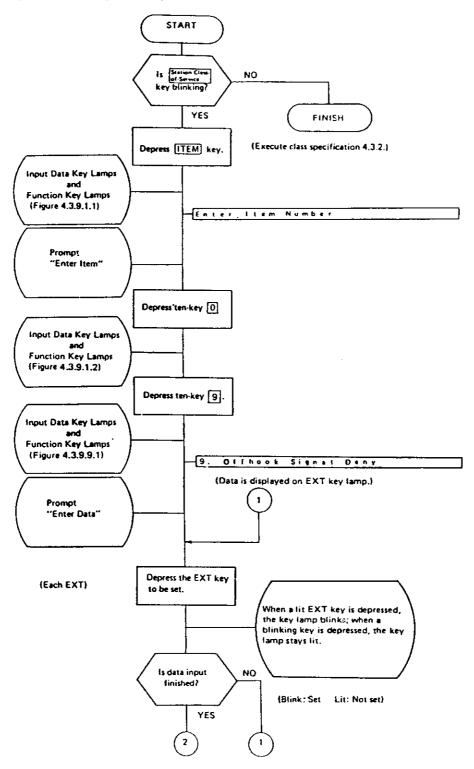
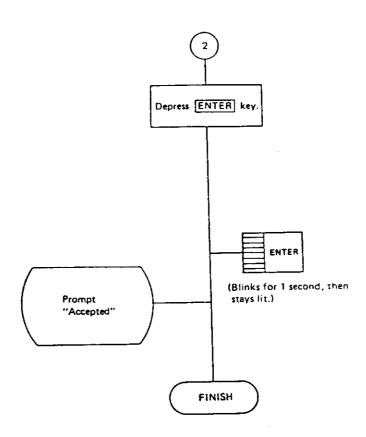


Figure 4.3.9.8.1.b

4.3.9.9 Off-Hook Signal Deny (Item 9)

Feature: Setting Off-Hook Signal Deny for each EXT





9. Offhook Signal Deny

Key Lamp

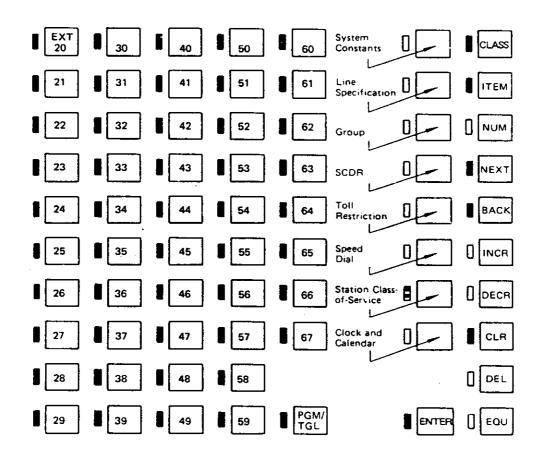


Figure 4.3.9.9.1,a

9. Offhook Signal Deny

Key Lamp

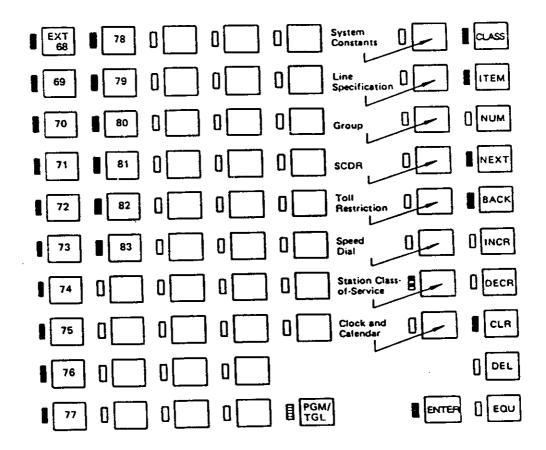
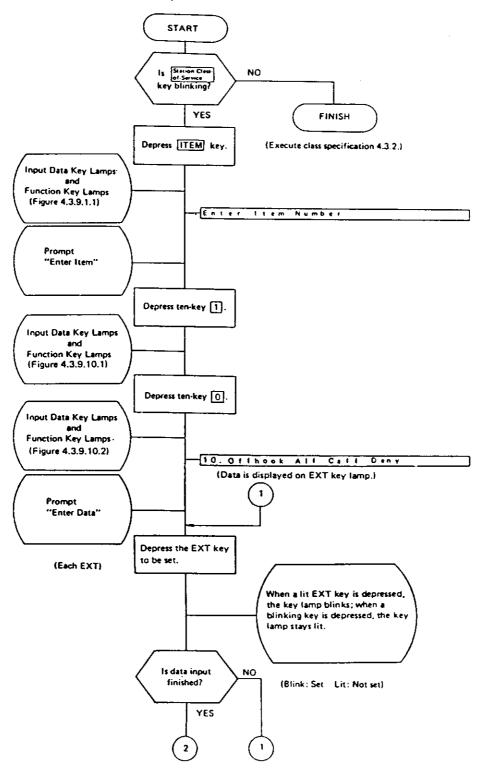


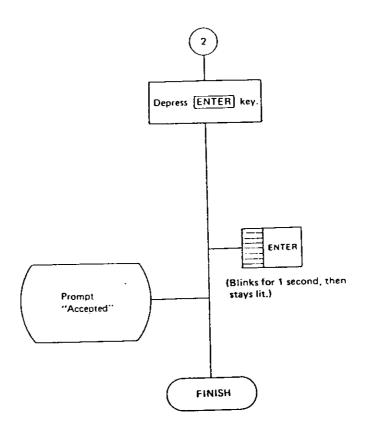
Figure 4.3.9.9.1.b

4.3.9.10 Off-Hook All-Call Deny (Item 10)

Feature: Setting Off-Hook All-Call Deny for each EXT



F



Enter Item Number

Key Lamp

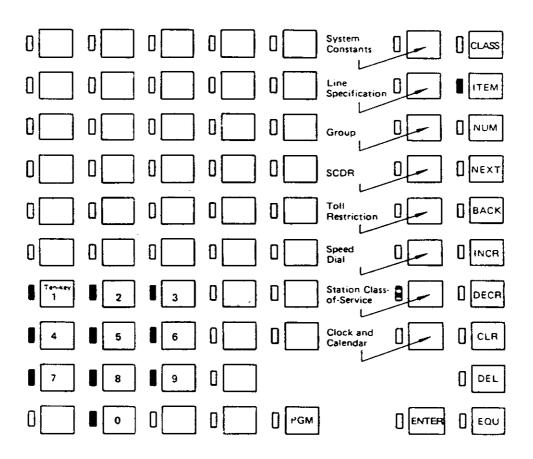


Figure 4.3.9.10.1

All-Call 10. Deny Offhook

Key Lamp

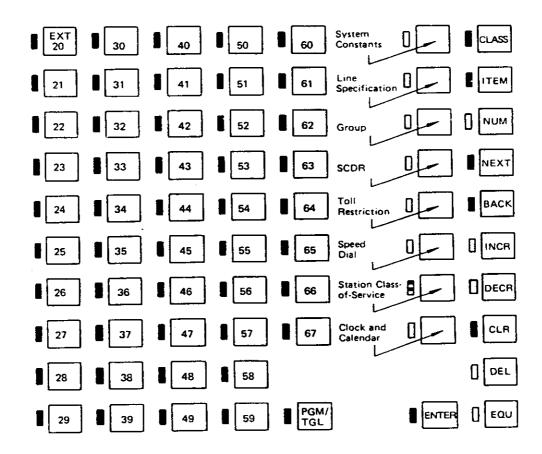


Figure 4.3.9.10.2.a

10. Offhook All-Call Deny

Key Lamp

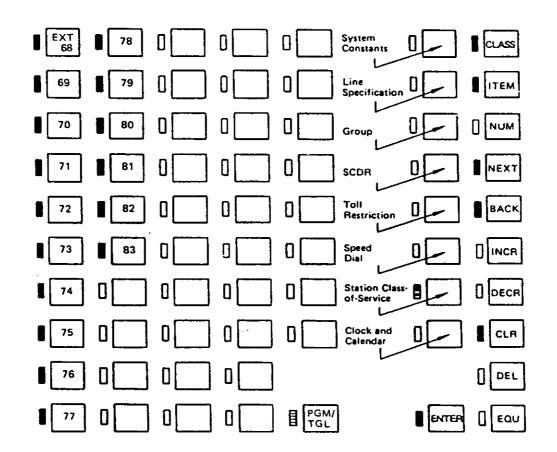
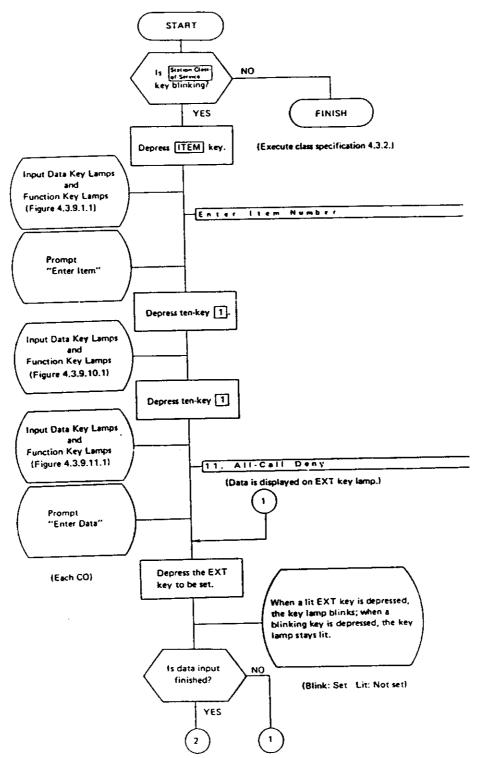
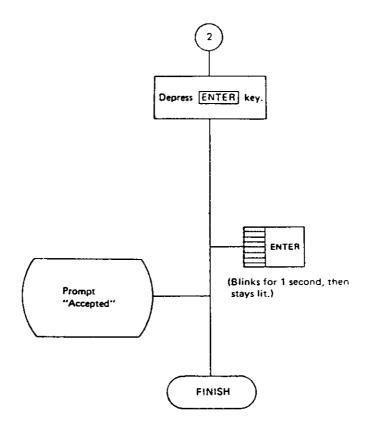


Figure 4.3.9.10.2.b

4.3.9.11 Hold Recall Deny (Item 11)

Feature: Setting Hold Recall Deny for each EXT





Deny 11.All Call

Key Lamp

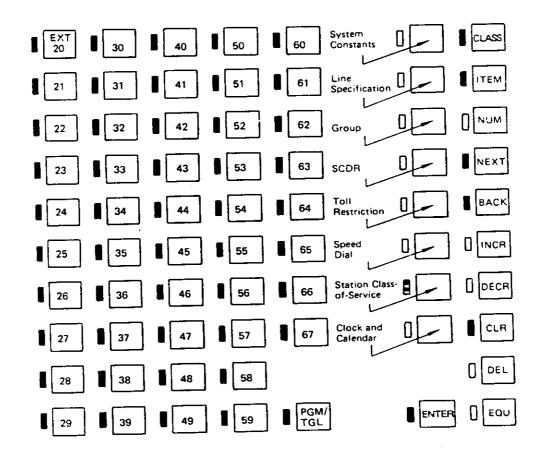


Figure 4.3.9.11.1.a

11. All-Call Deny

Key Lamp

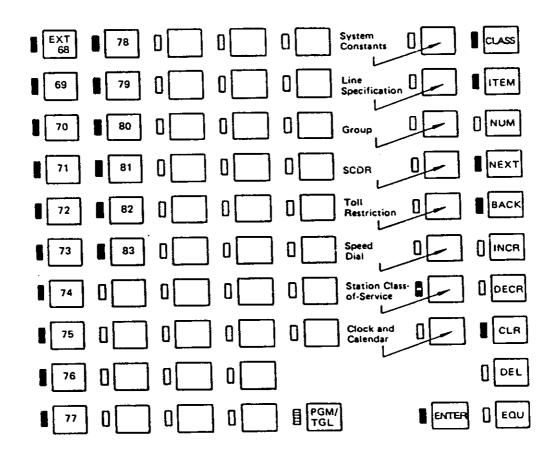
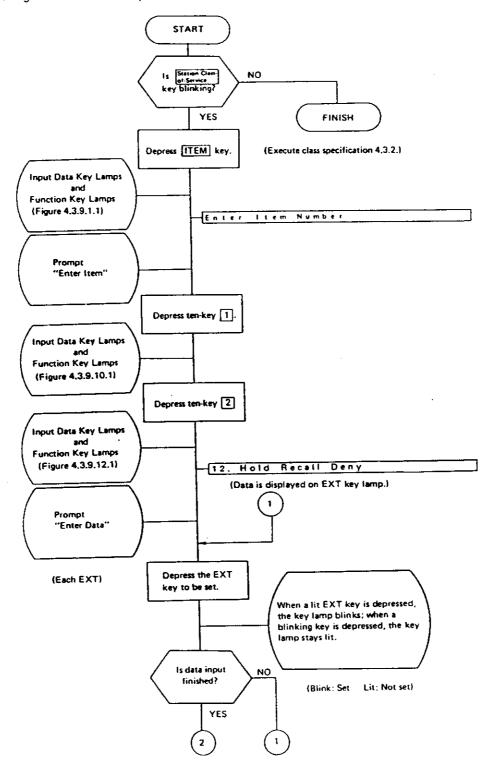
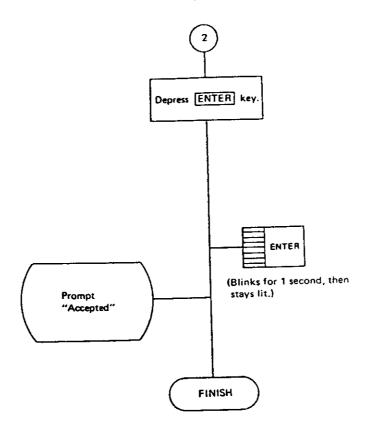


Figure 4.3.9.11.1.b

4.3.9.12 Hold Recall Deny (Item 12)

Feature: Setting Hold Recall Deny for each EXT





12. Hold Recall Deny

Key Lamp

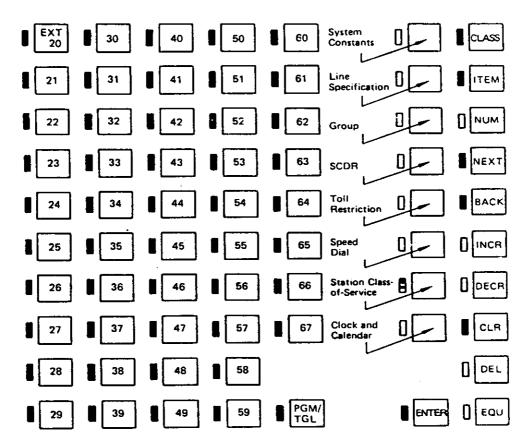


Figure 4.3.9.12.1.a

12. Hold Recall Deny

Key Lamp

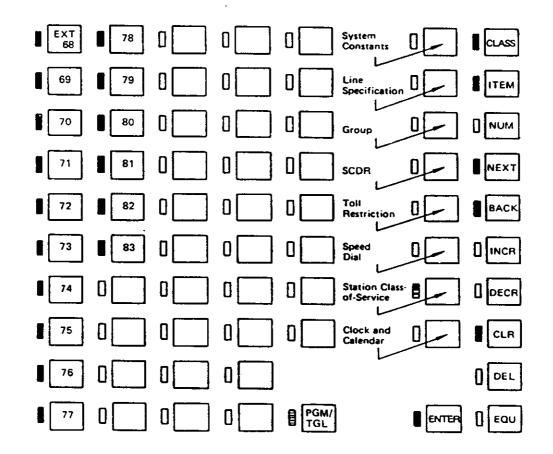
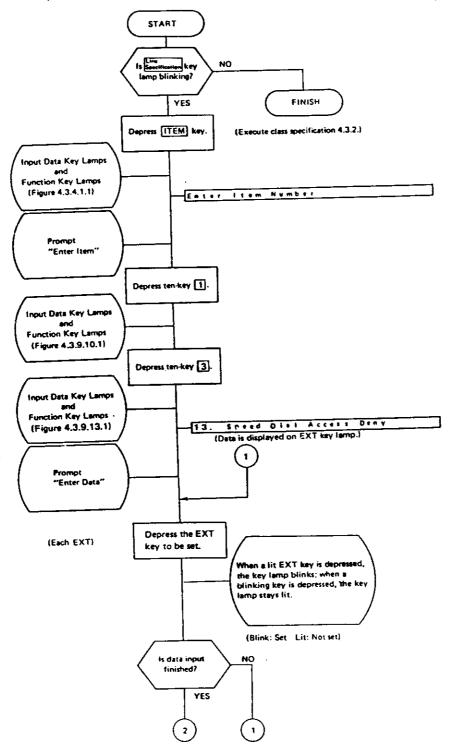


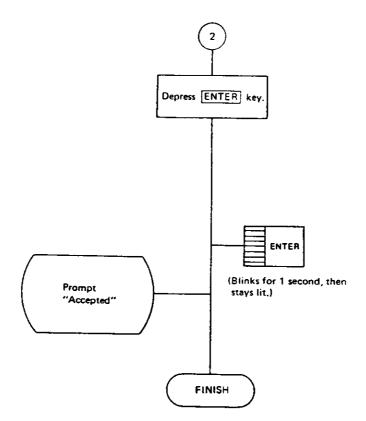
Figure 4.3.9.12.1.b

Speed Dial Access Deny (Item 13) 4.3.9.13

Setting Speed Dial Feature:

Access Deny for each EXT





13. Speed Dial Access Deny

Key Lamp

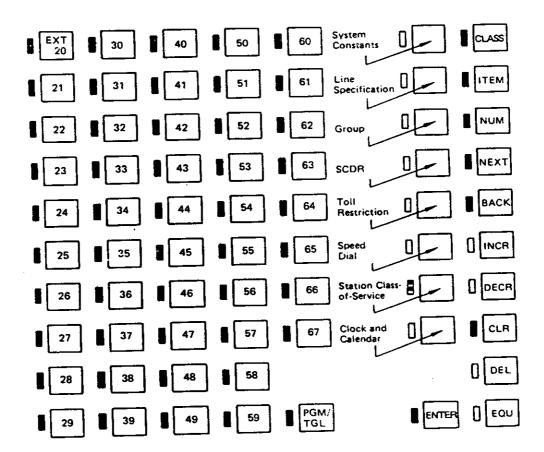


Figure 4.3.9.13.1.a

13. Speed Dial Access Deny

Key Lamp

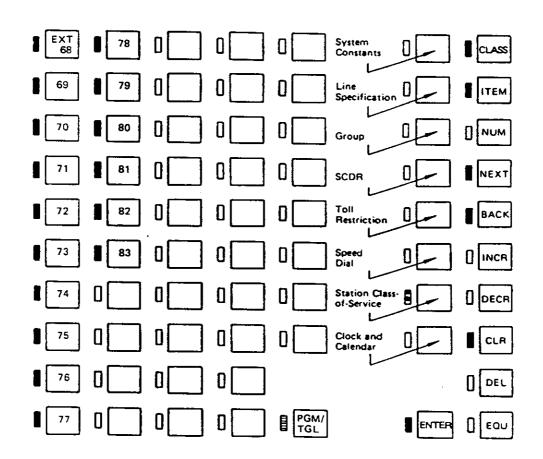
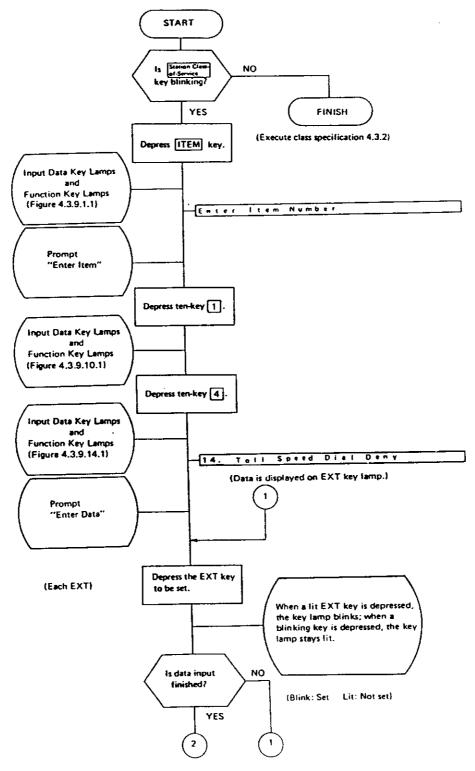


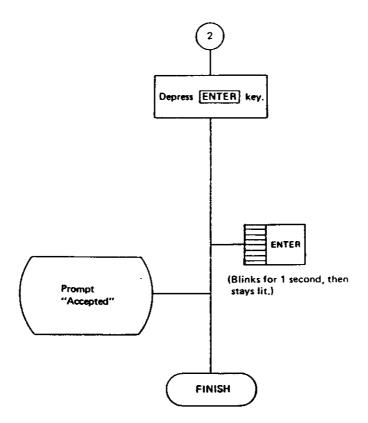
Figure 4.3.9.13.1.b

Toll Speed Dial Access Deny (Item 14) 4.3.9.14

Setting Toll Speed Dial Access Deny for each EXT Feature:



IWATSU EX-1232/2464





Key Lamp

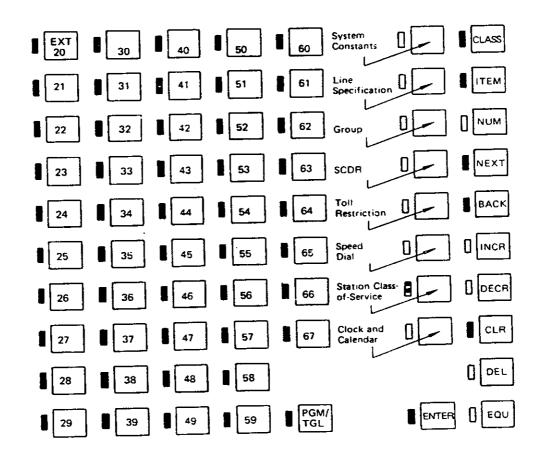


Figure 4.3.9.14.1.a

14. Toll Speed Dial Deny

Key Lamp

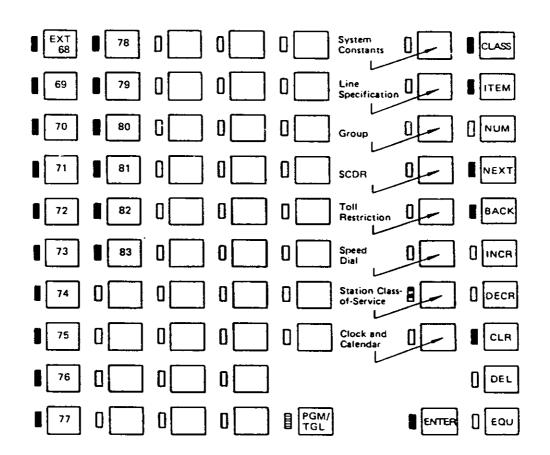
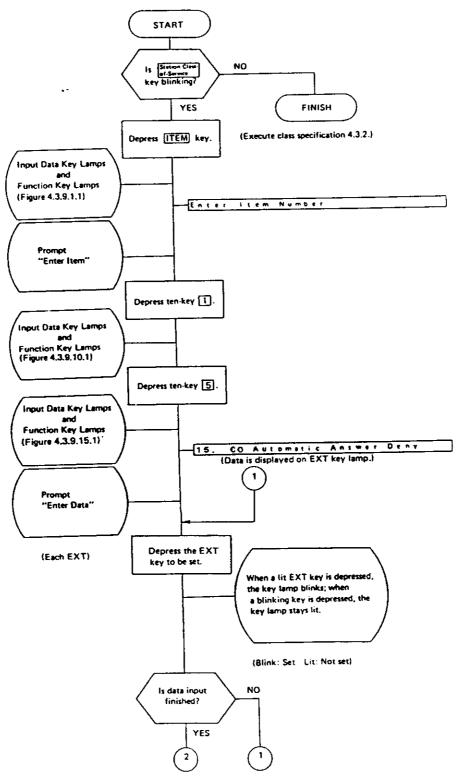
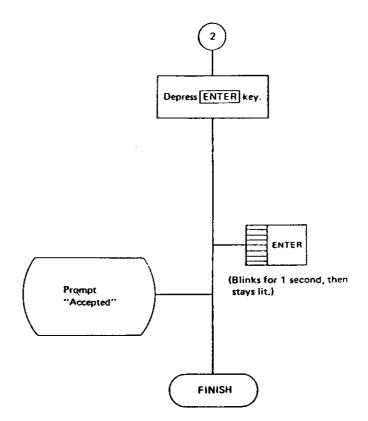
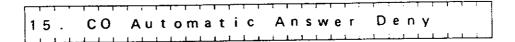


Figure 4.3.9.14.1.b

Setting CO Automatic Answer Deny for each EXT Feature:







IWATSU

Key Lamp

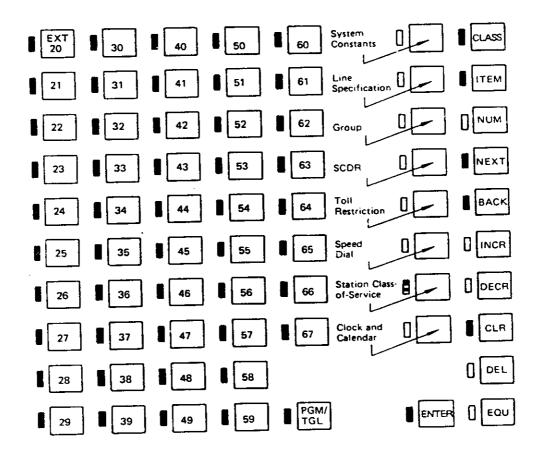


Figure 4.3.9.15.1.a

15. CO Automatic Answer Deny

Key Lamp

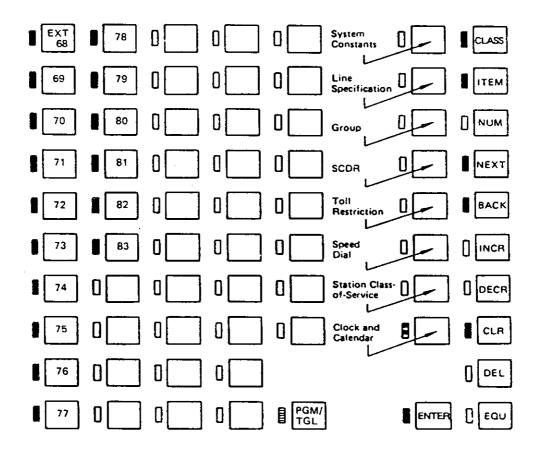
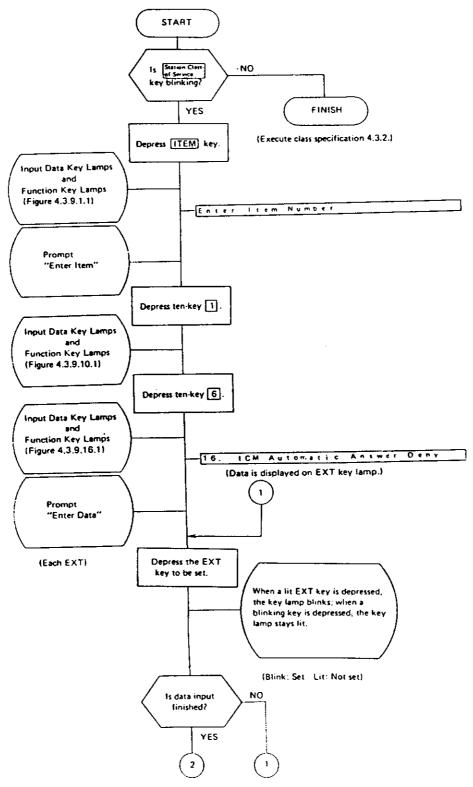
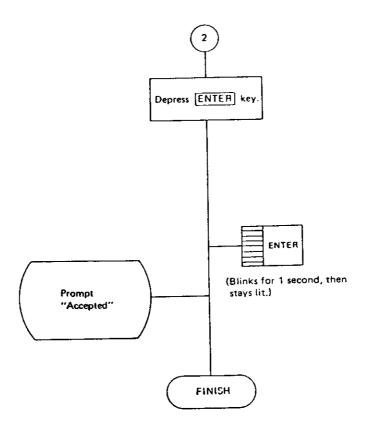


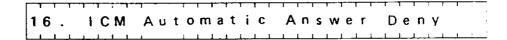
Figure 4.3.9.15.1.b

ICM Automatic Answer Deny (Item 16) 4.3.9.16

Setting ICM Automatic Answer Deny for each EXT Feature:







Key Lamp

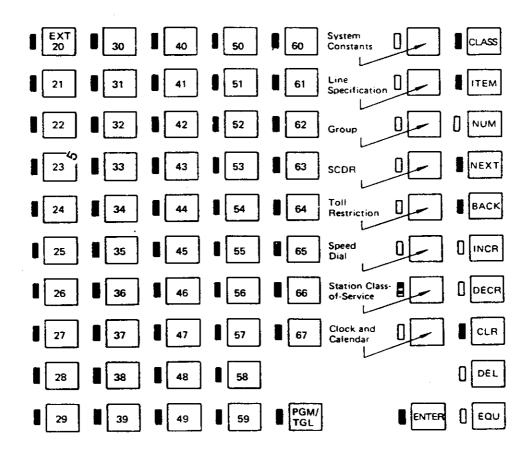


Figure 4,3.9.16.1.a

16. I C M Automatic Answer Deny

Key Lamp

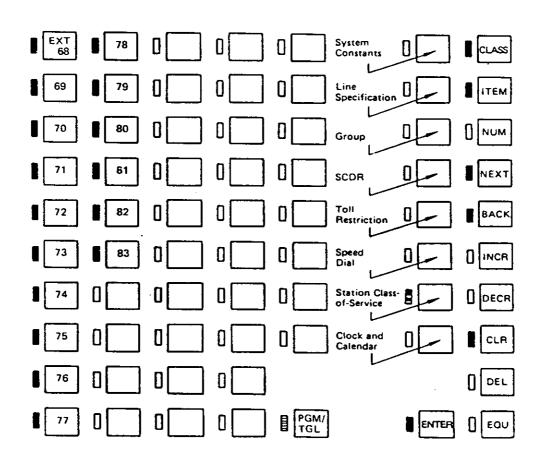
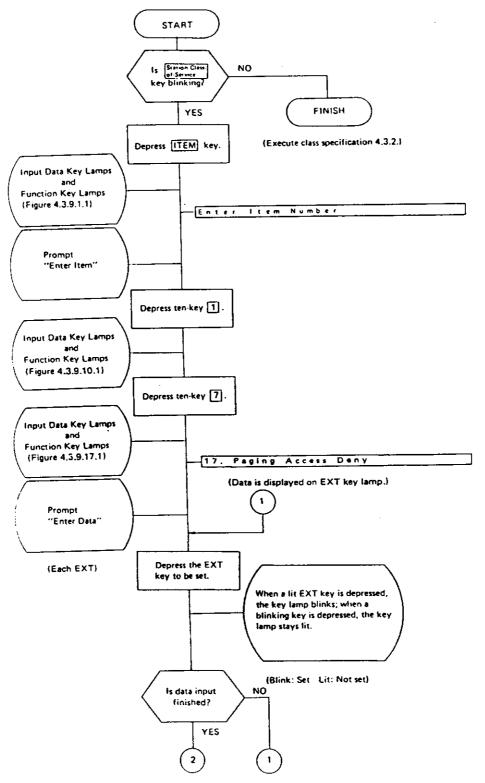


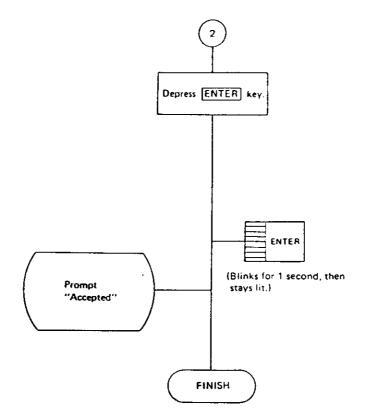
Figure 4.3.9.16.1.b

1

Page Access Deny (Item 17) 4.3.9.17

Setting Page Access Deny for each EXT Feature:





Deny Access Paging 17.

Key Lamp

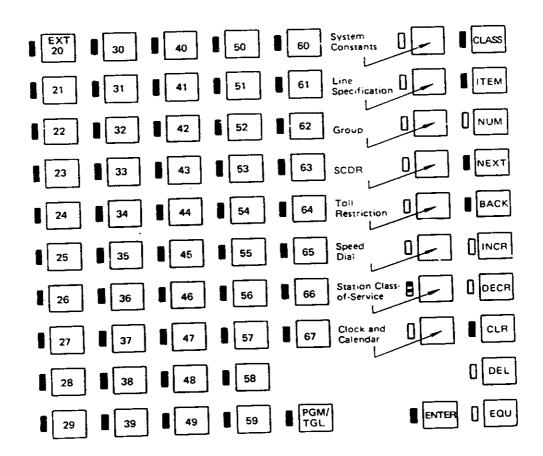


Figure 4.3.9.17.1.a

17. Paging Access Deny

Key Lamp

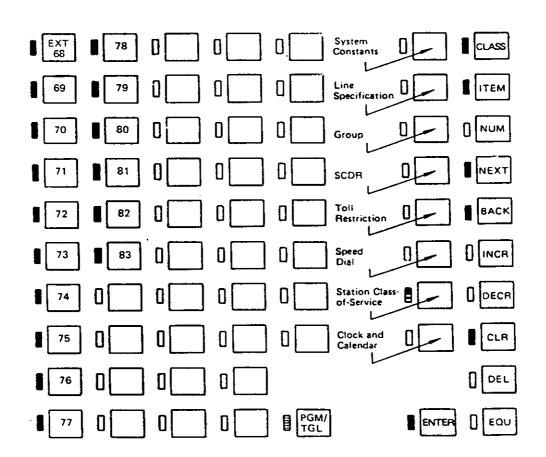
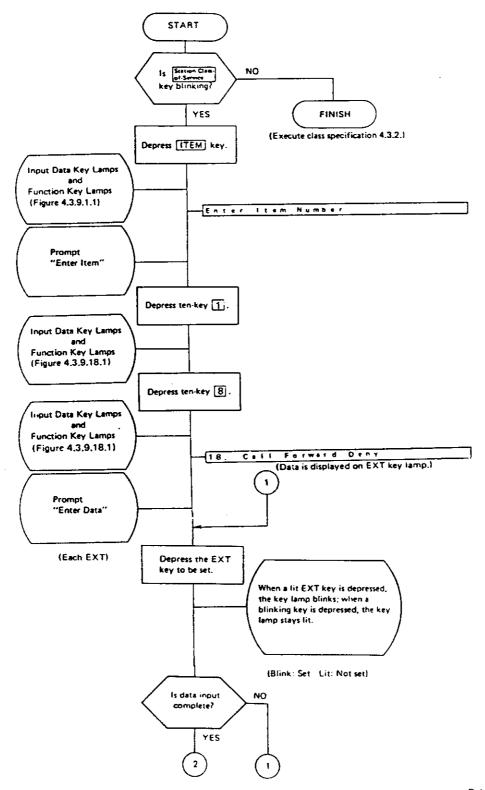
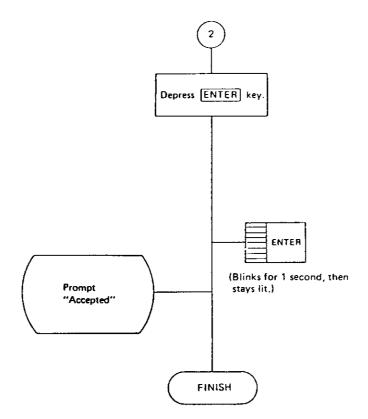


Figure 4.3.9.17.1.b

4.3.9.18 Call Forward Deny (Item 18)

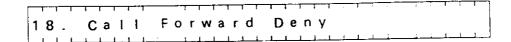
Feature: Setting Call Forward Deny for each EXT





(-

Display



Key Lamp

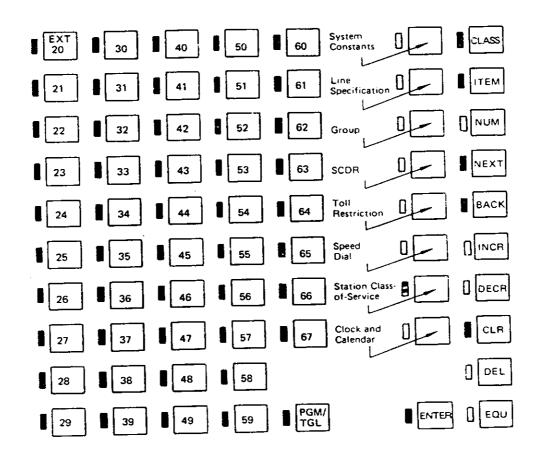


Figure 4.3.9.18.1.a

18. Call Forward Deny

Key Lamp

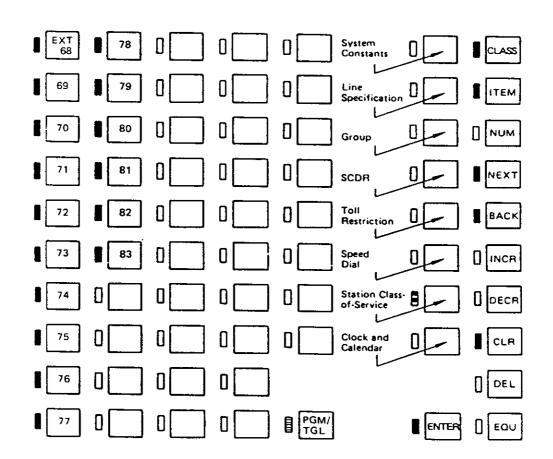
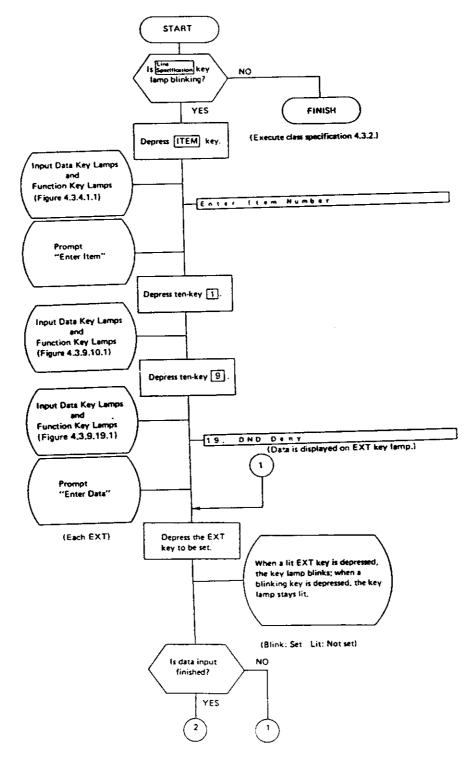


Figure 4.3.9.18.1.b

Do-Not-Disturb Deny (Item 19) 4.3.9.19

Setting Do-Not-Disturb Feature:

Deny for each EXT



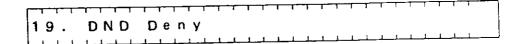


Depress ENTER key.

(Blinks for 1 second, then

stays lit.)

FINISH



Key Lamp

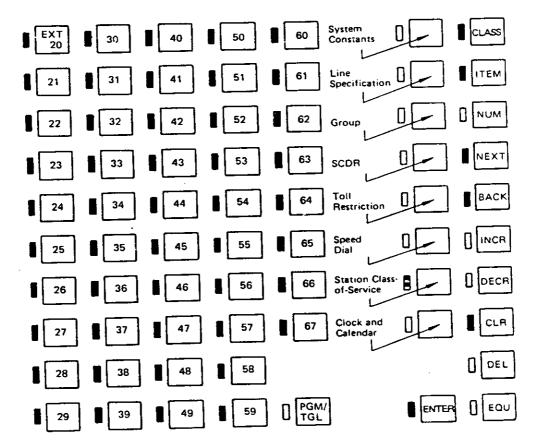


Figure 4.3.9.19.1.a

19. DND Deny

Key Lamp

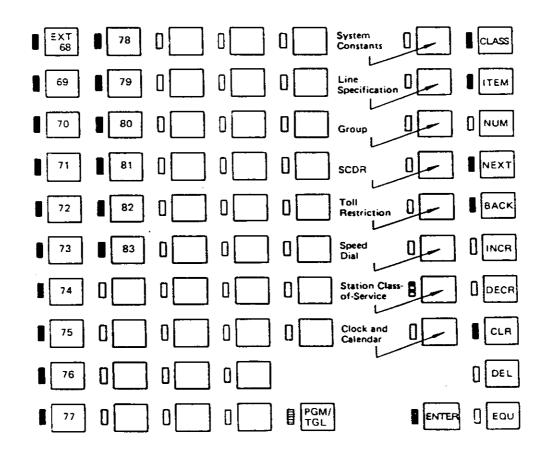
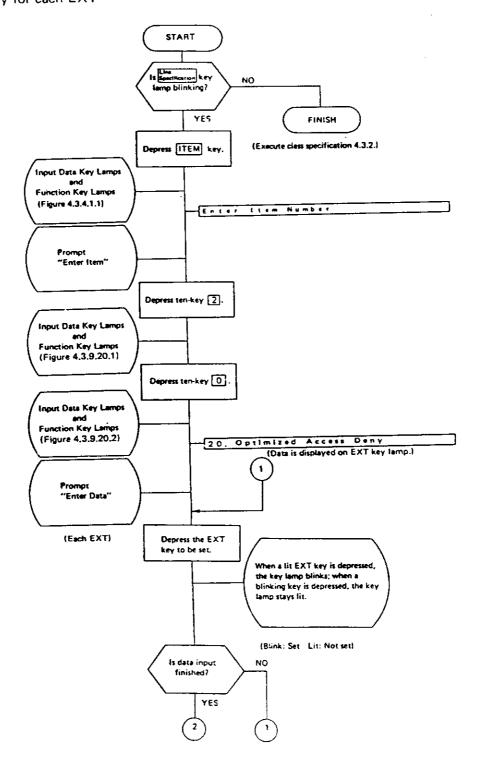
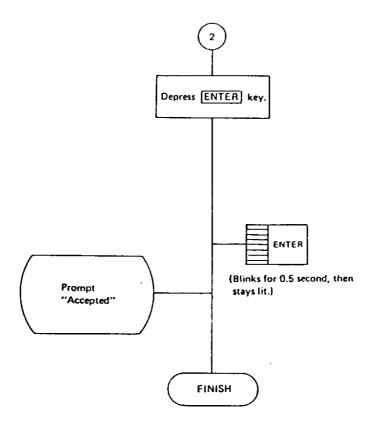


Figure 4.3.9.19.1.b

4.3.9.20 Optimized Access Deny (Item 20)

Feature: Setting Optimized Access Deny for each EXT





Number ltem Enter

Key Lamp

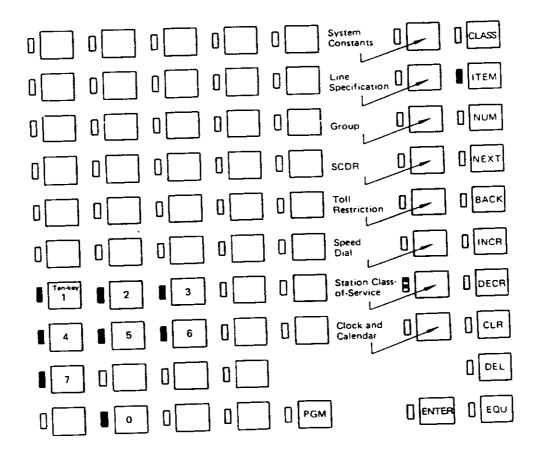


Figure 4.3.9.20.1

20. Optimized Access Deny

Key Lamp

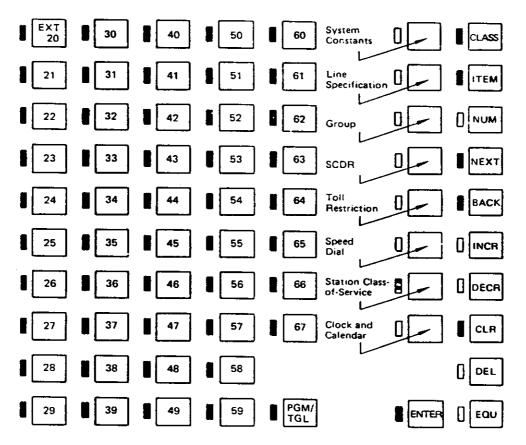


Figure 4.3.9.20.2.a

Optimized Access Deny 20.

Key Lamp

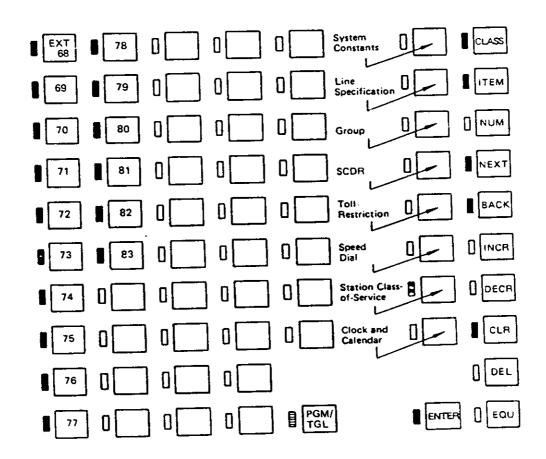
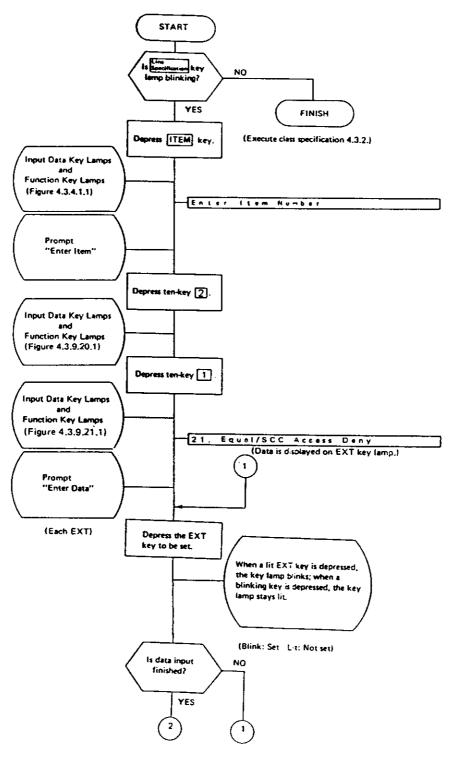


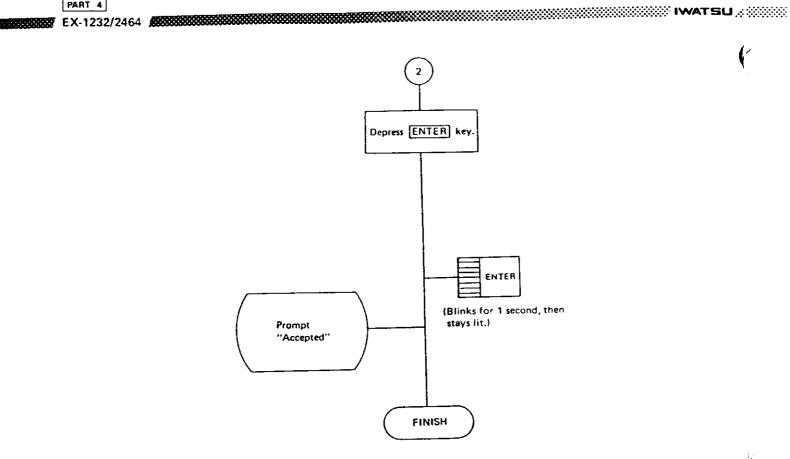
Figure 4.3.9.20.2.b

4.3.9.21 Equal/SCC Access Deny (Item 21)

Feature: Setting Equal/SCC Access

Deny for each EXT





Equal SCC Access Deny

Key Lamp

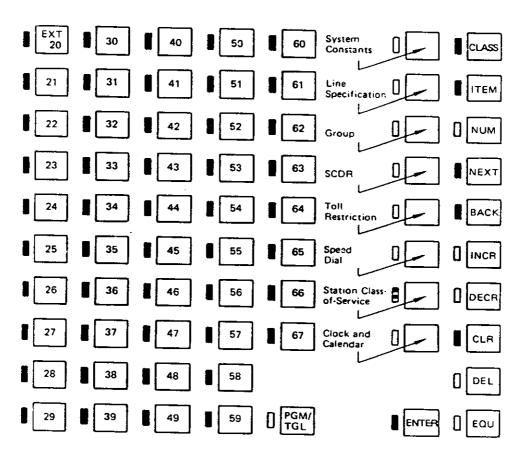


Figure 4.3.9.21.1.a

SCC Deny Access Equal 21.

Key Lamp

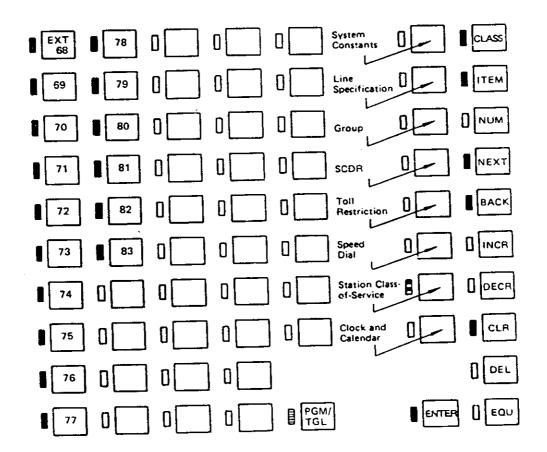
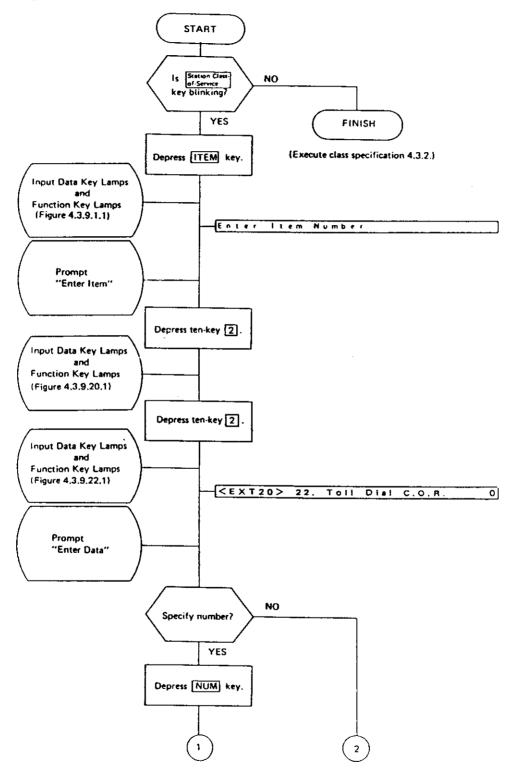
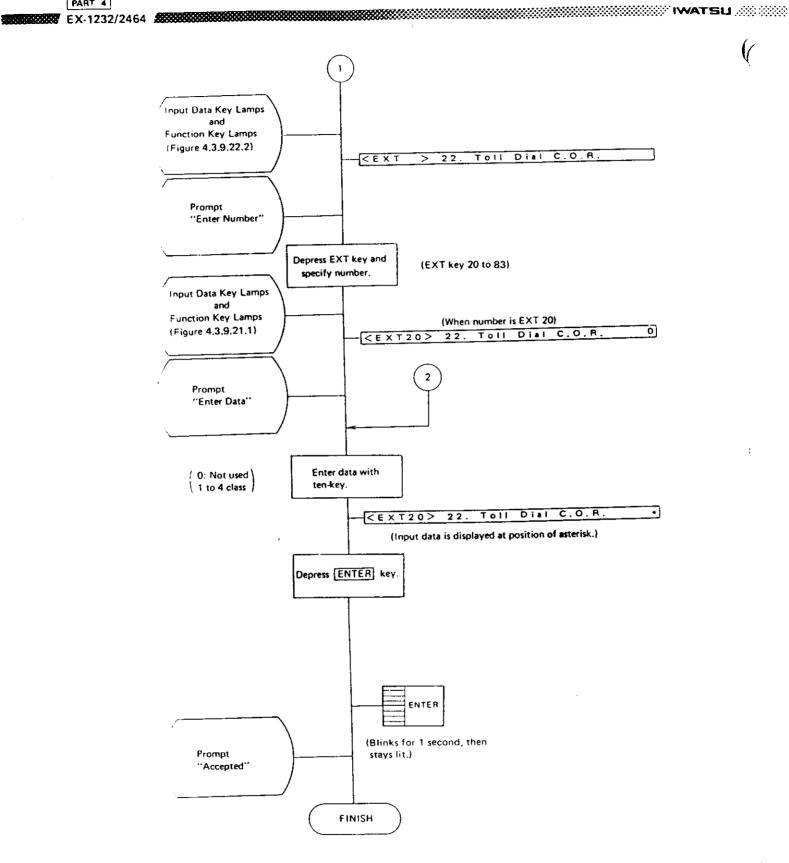


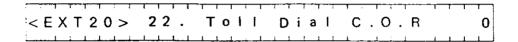
Figure 4.3.9.21.1.b

4.3.9.22 Toll Dial Class of Restriction (Item 22)

Feature: Setting Toll Dial Class of Restriction for each EXT







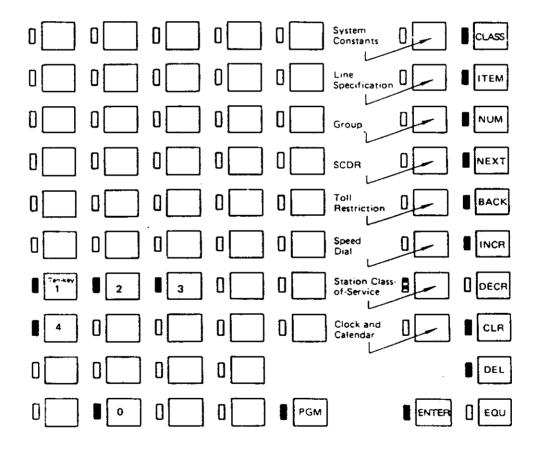


Figure 4.3.9.22.1



Key Lamp

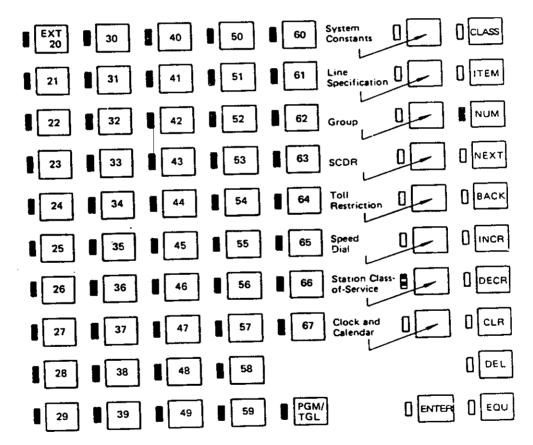


Figure 4.3.9.22.2.a

<EXT > 22. Toll Dial C.O.R

Key Lamp

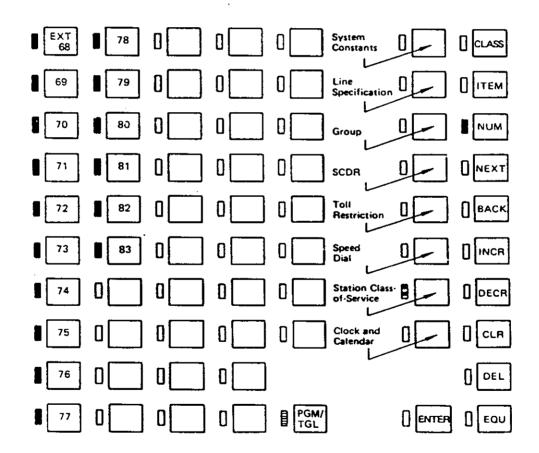
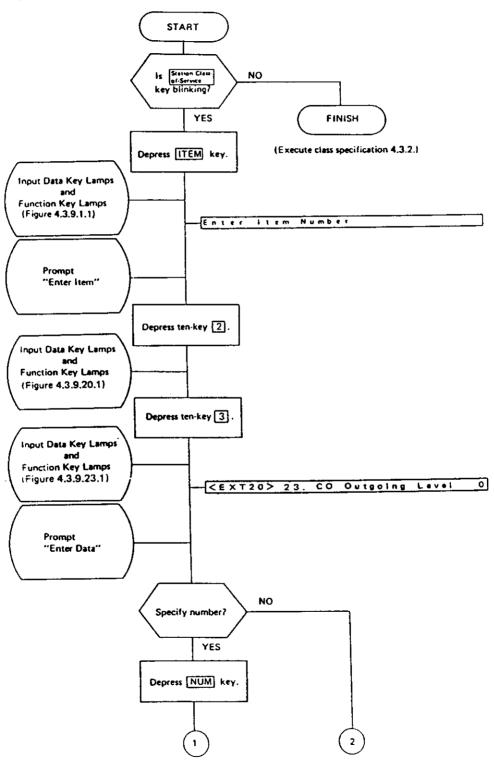
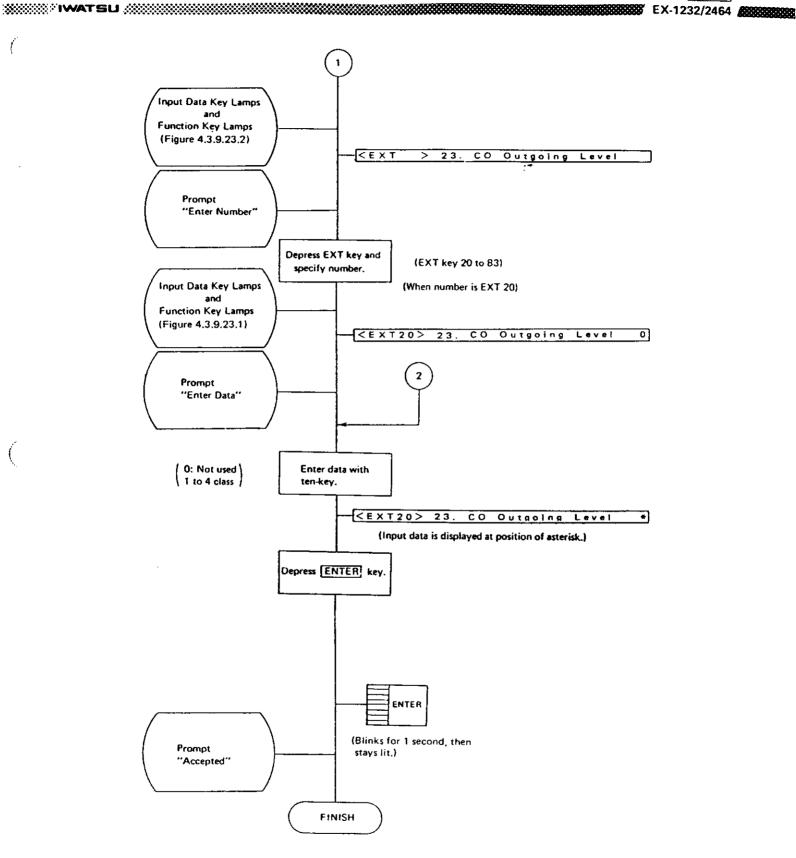


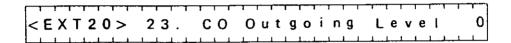
Figure 4.3.9.22.2.b

4.3.9.23 CO Outgoing Level (Item 23)

Feature: Setting CO Outgoing Level for each EXT







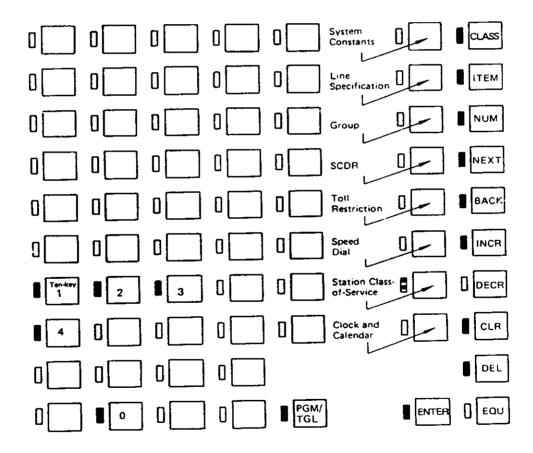


Figure 4.3.9.23.1



Key Lamp

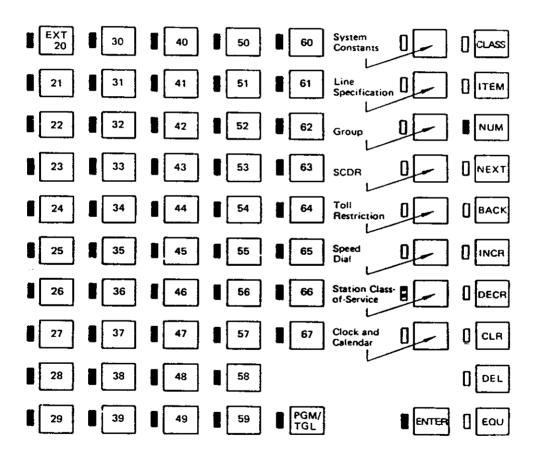
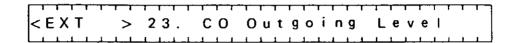


Figure 4.3.9.23.2.a



Key Lamp

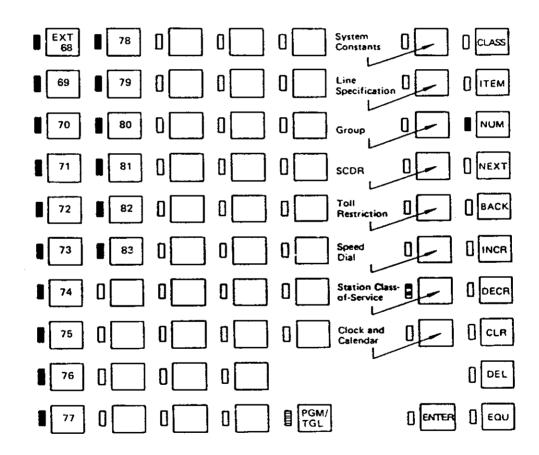
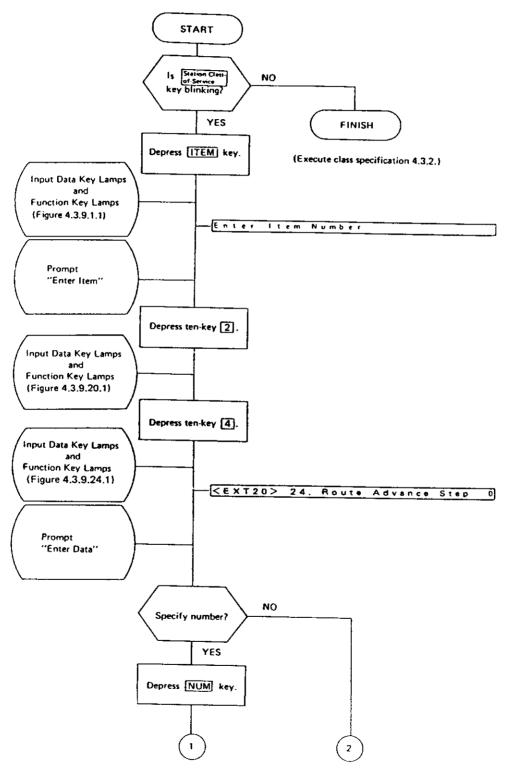
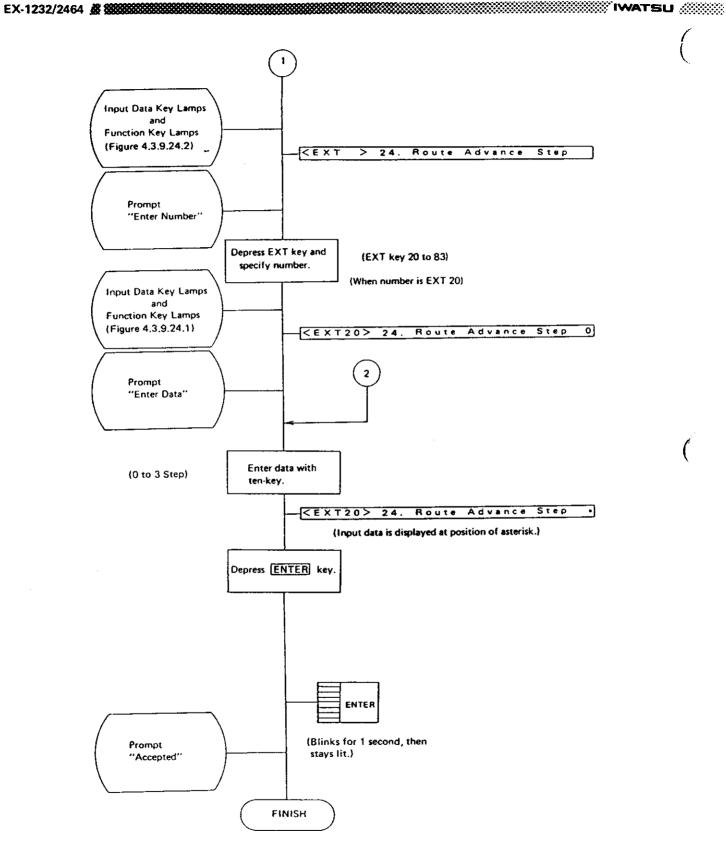


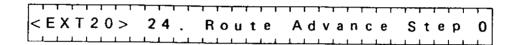
Figure 4.3.9.23.2.b

4.3.9.24 Route Advance Step (Item 24)

Setting Route Advance Step for each EXT Feature:







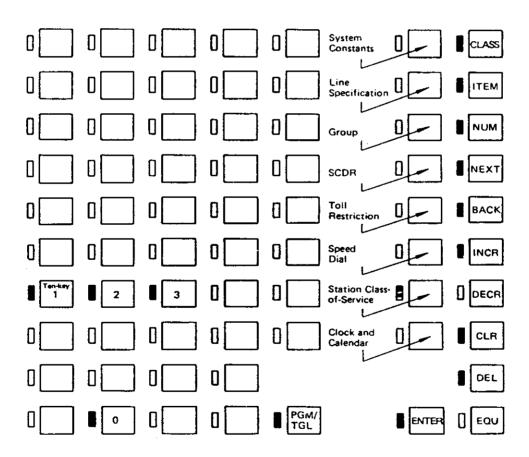
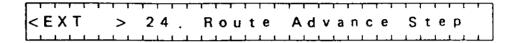


Figure 4.3.9.24.1



Key Lamp

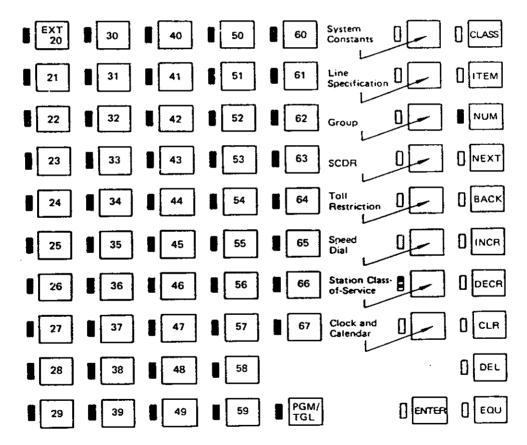
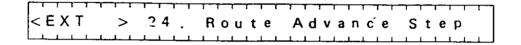


Figure 4.3.9.24.2.a



Key Lamp

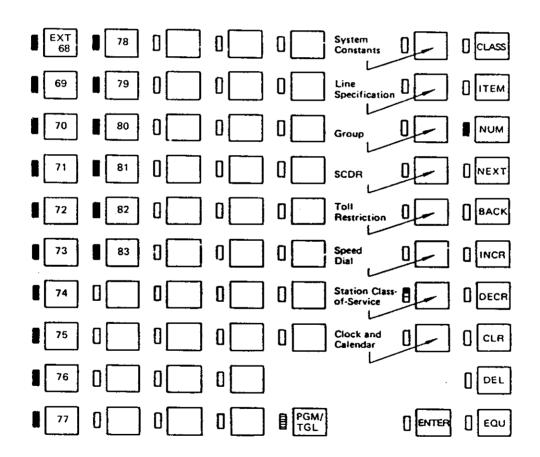
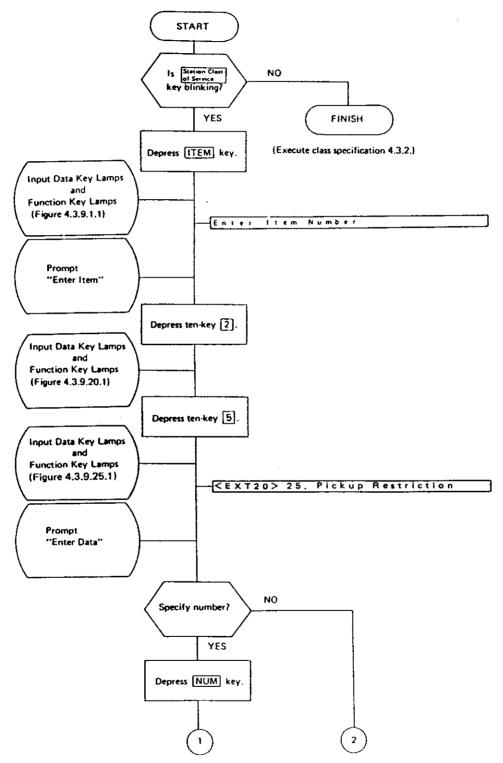
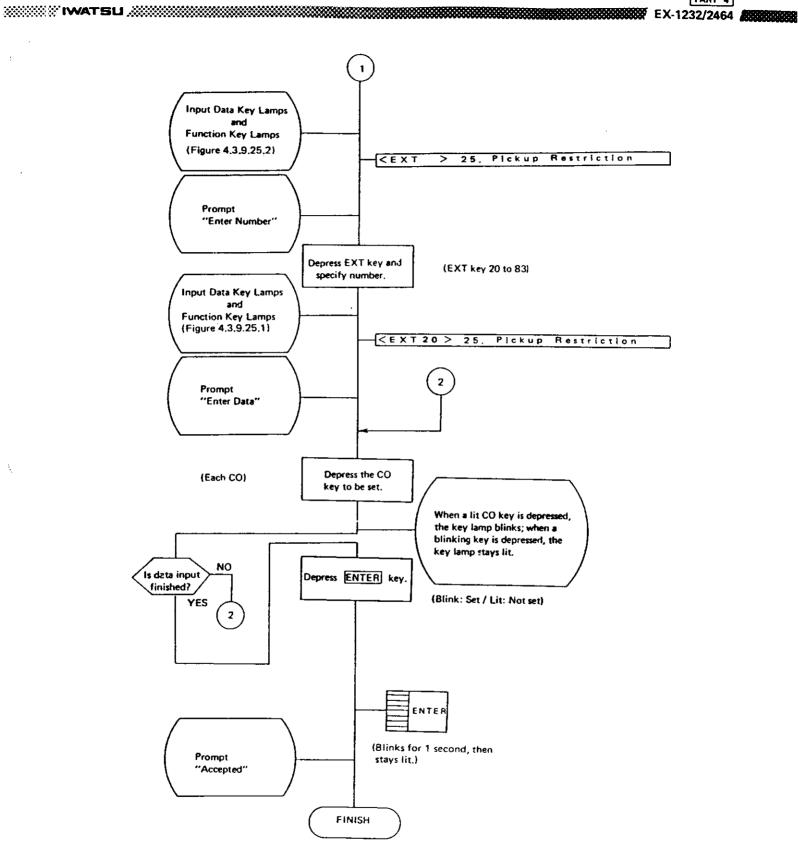


Figure 4.3.9.24.2.b

4.3.9.25 Pickup Restriction (Item 25)

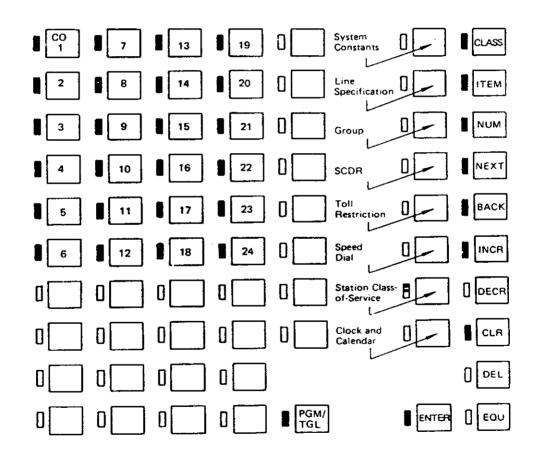
Feature: Setting Pickup Restriction for each EXT





25. < E X T 2 0 > Pickup Restriction

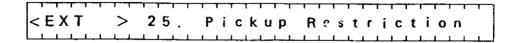
Key Lamp



Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.9.25.1

1



Key Lamp

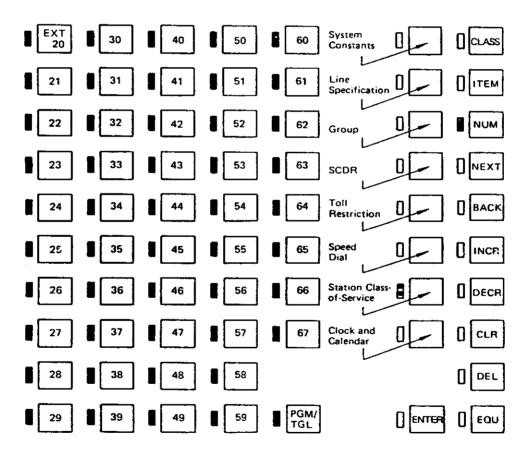


Figure 4.3.9.25.2.a

<EXT > 25. Pickup Restriction

Key Lamp

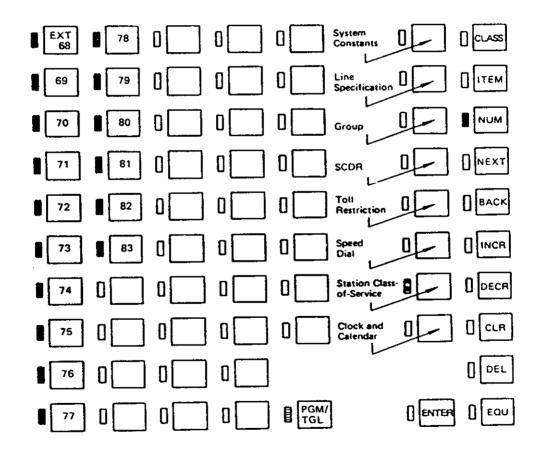
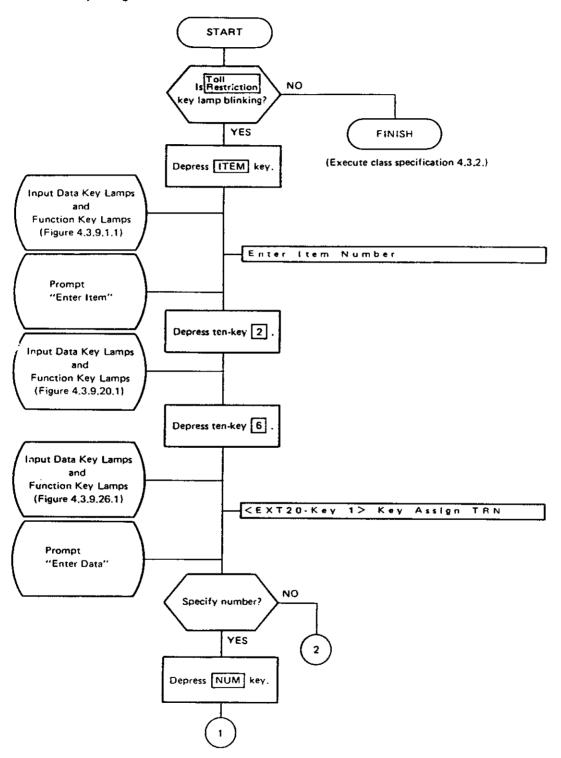
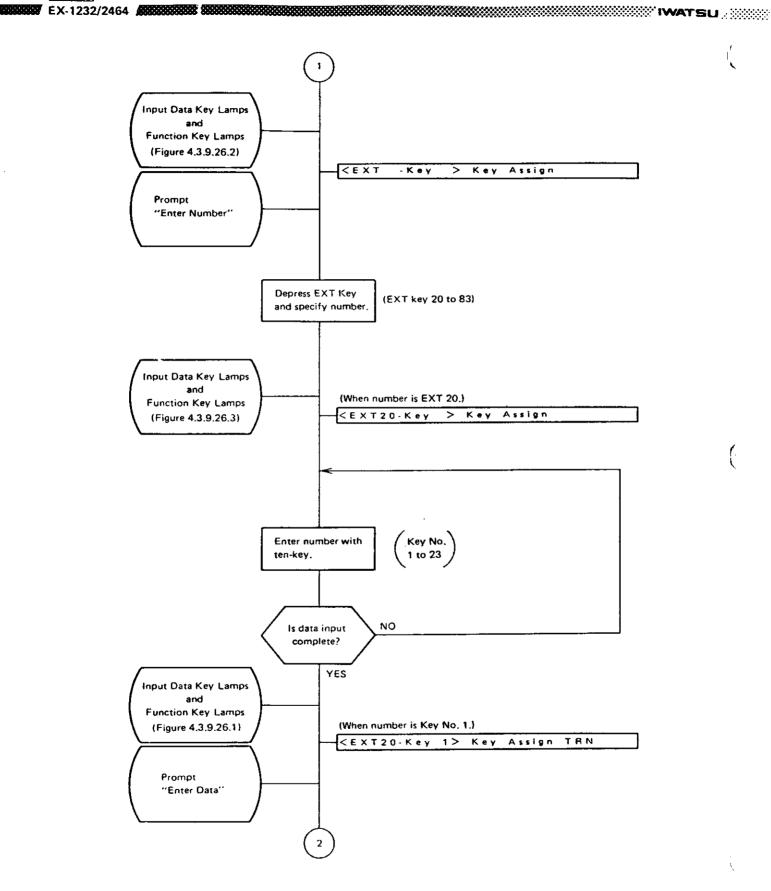


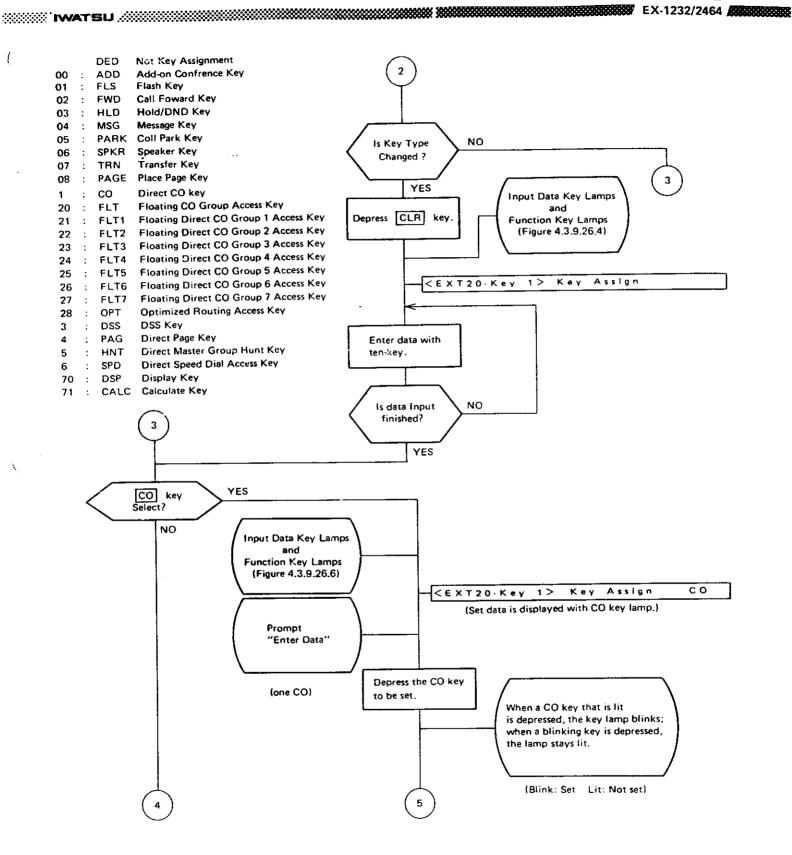
Figure 4.3.9.25.2.b

4.3.9.26 KT Key Assignment (Item 26)

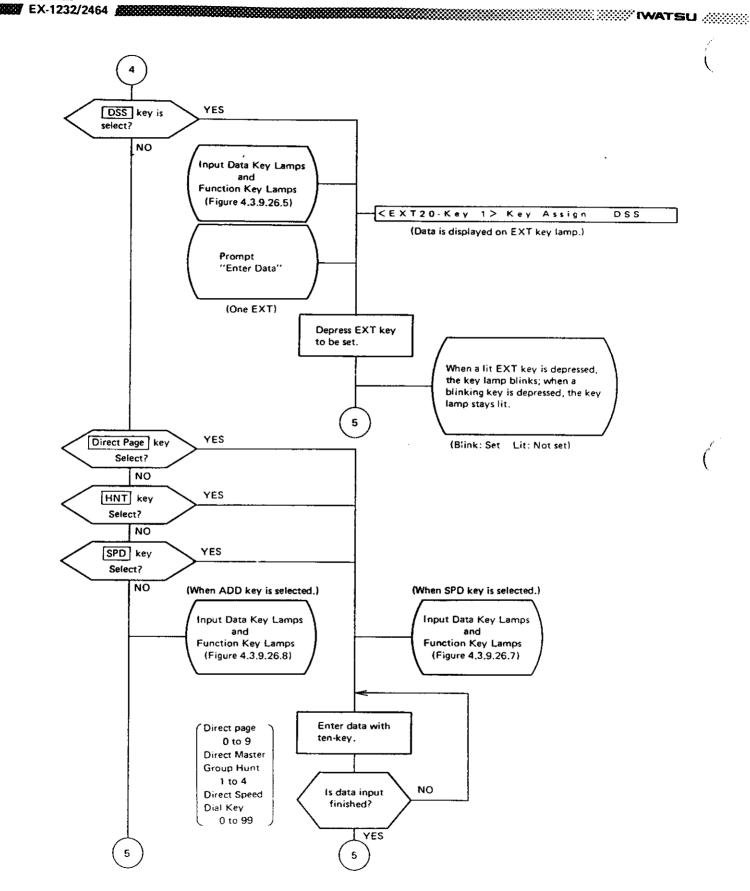
Feature: KT/VP Key Assignment

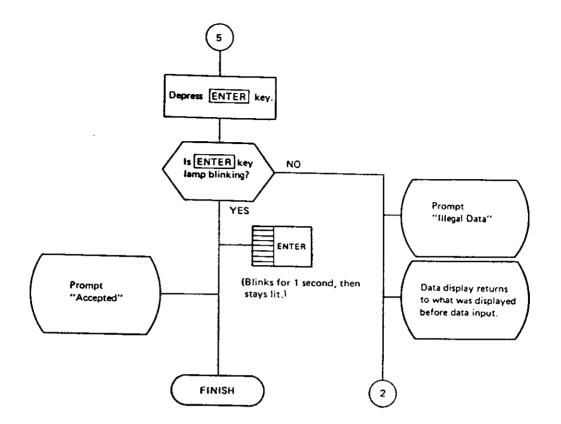






1





<EXT20-Key 1> Key Assign TRN

UZTAWI

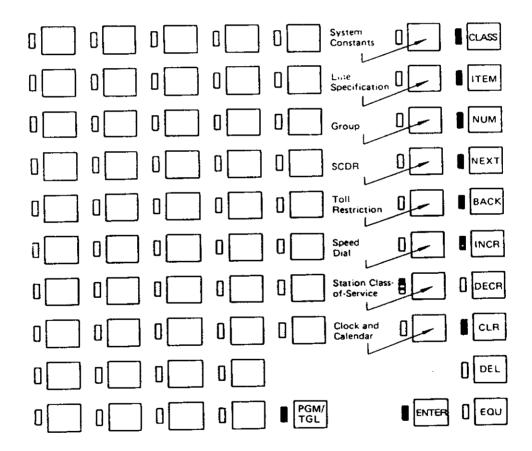


Figure 4.3.9.26.1



Key Lamp

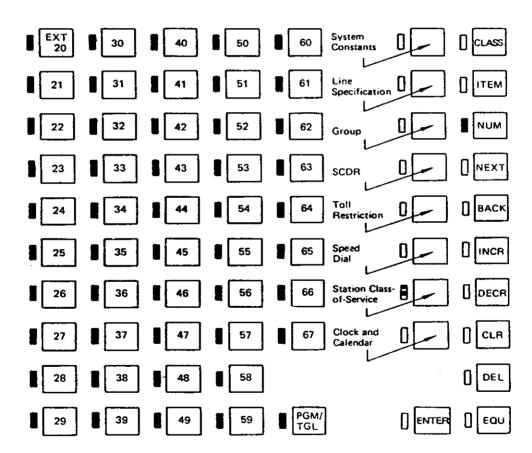
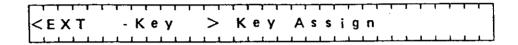


Figure 4.3.9.26.2.a



Key Lamp

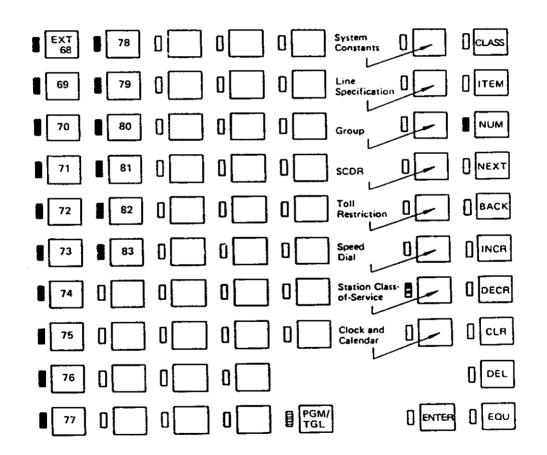
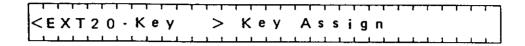


Figure 4.3.9.26.2.b



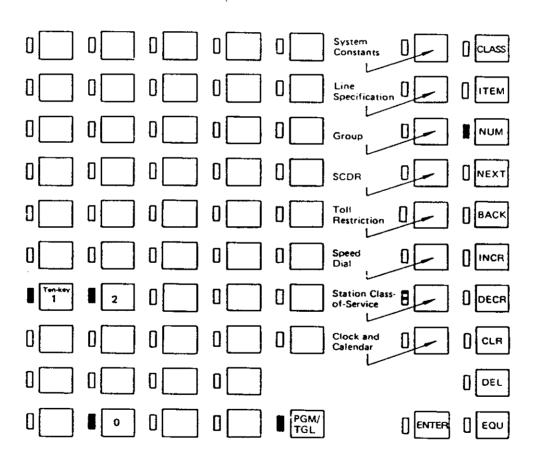


Figure 4.3.9,26.3

<EXT20-Key 1> Key Assign

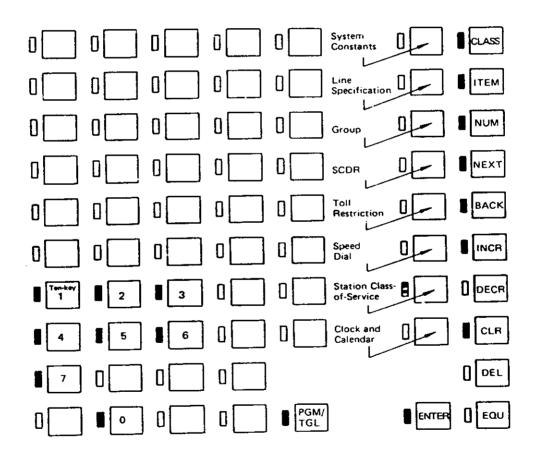


Figure 4.3.9.26.4



Key Lamp

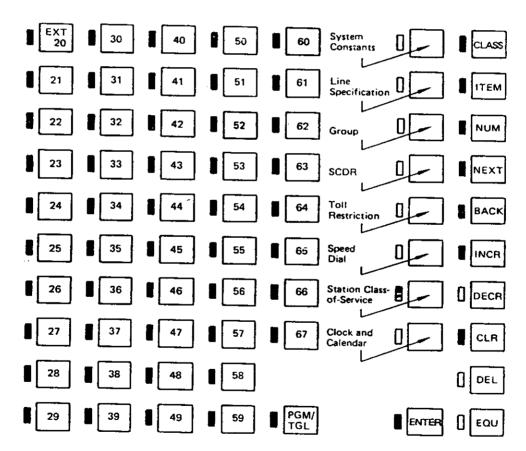


Figure 4.3.9.26,5.a

< E X T 2 0 - K e y Кеу Assign 1 > DSS

Key Lamp

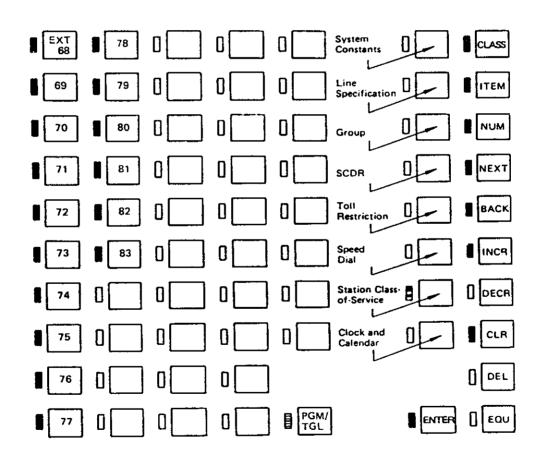
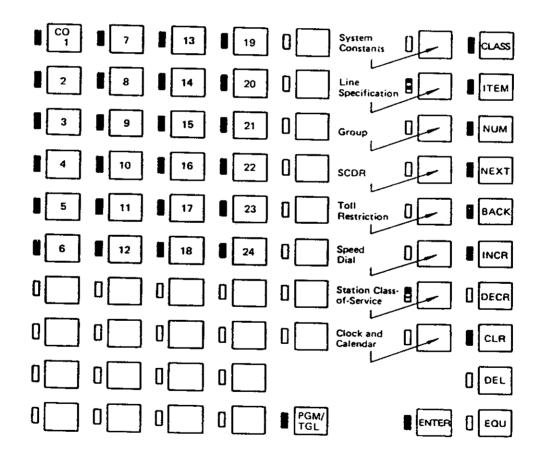


Figure 4.3.9.26.5.b

<EXT20-Key 1> Key Assign CO

Key Lamp



Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.9.26.6

<EXT20-Key 1> Key Assign SPD

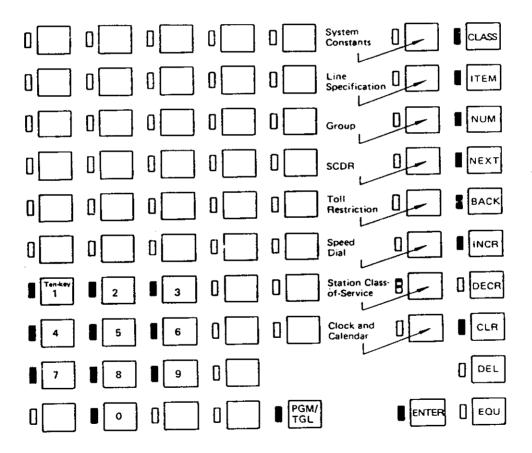


Figure 4.3.9.26.7



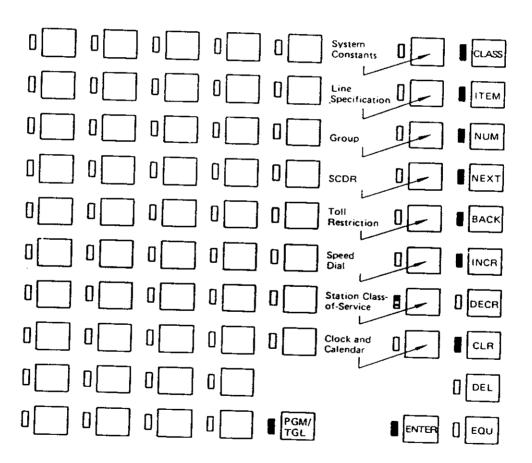
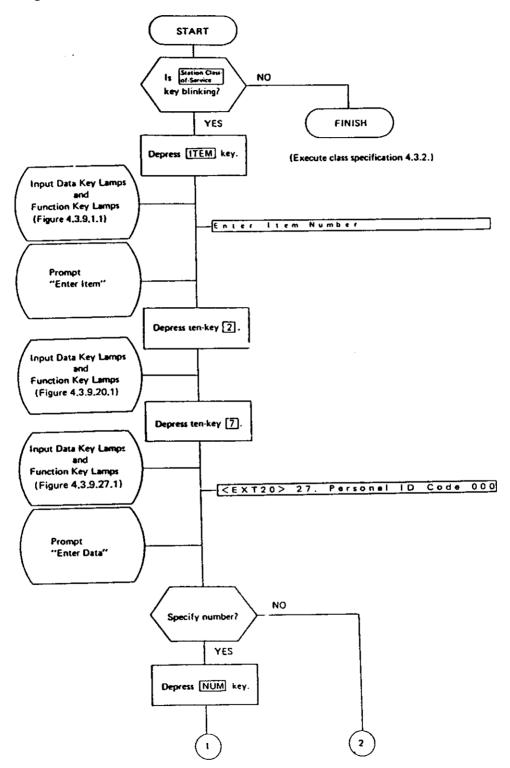
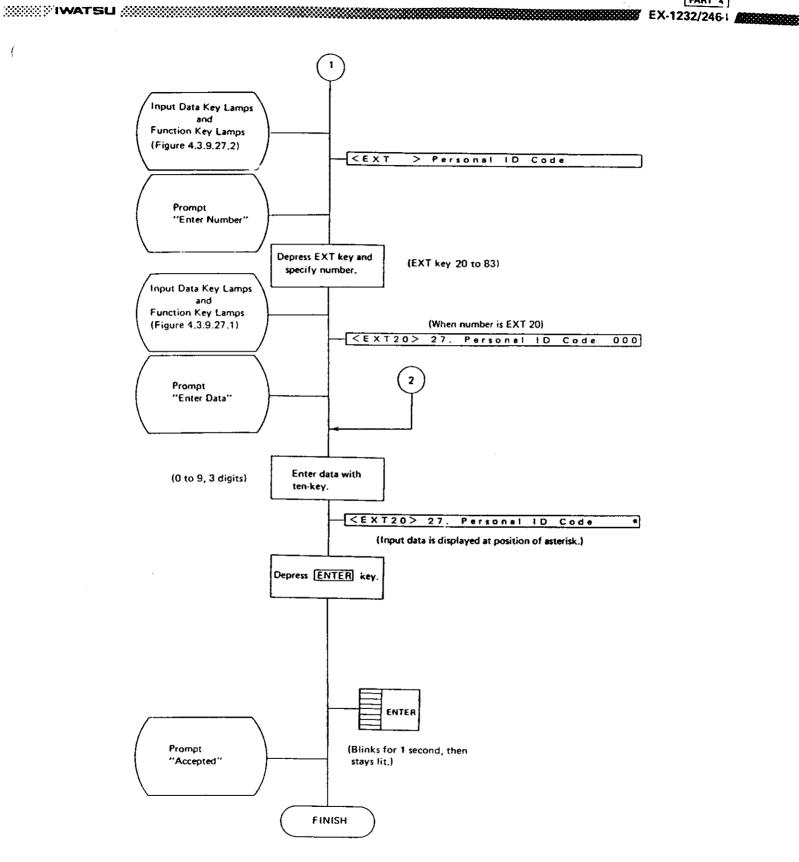


Figure 4.3.9.26.8

4.3.9.27 Personal ID Code (Item 27)

Feature: Setting Personal ID Code for each EXT





1



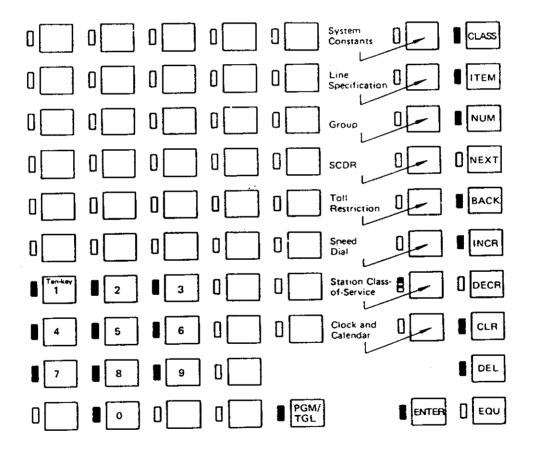
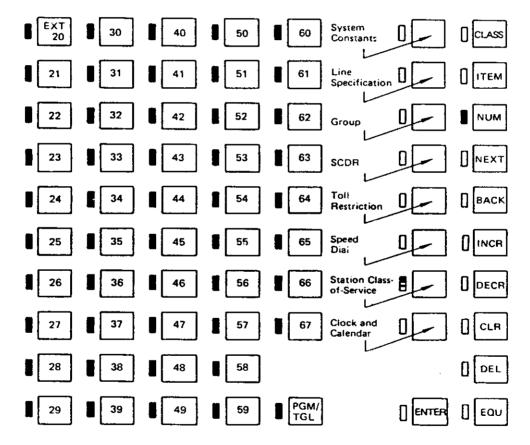


Figure 4.3.9.27.1

<EXT > 27. Personal ID Code

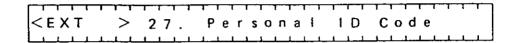
Key Lamp



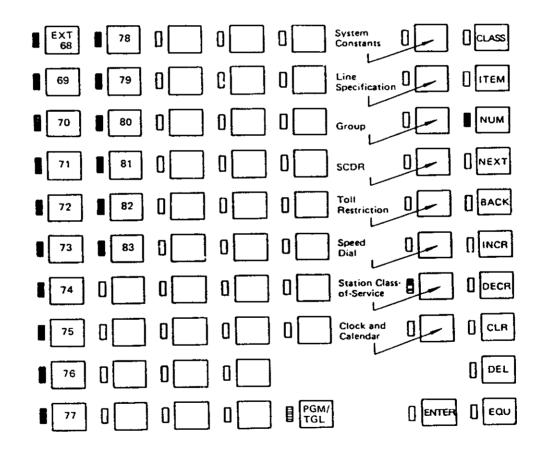
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.9.27.2.a



Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.9.27.2.b

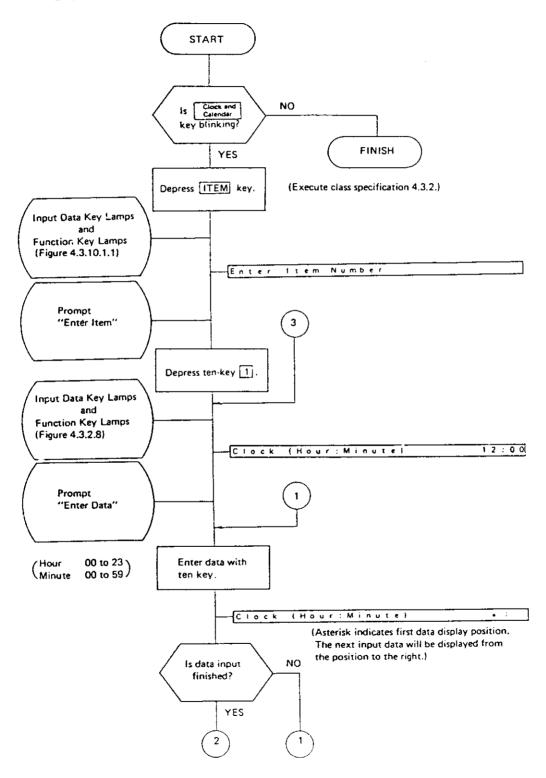
4.3.10 Clock and Calendar

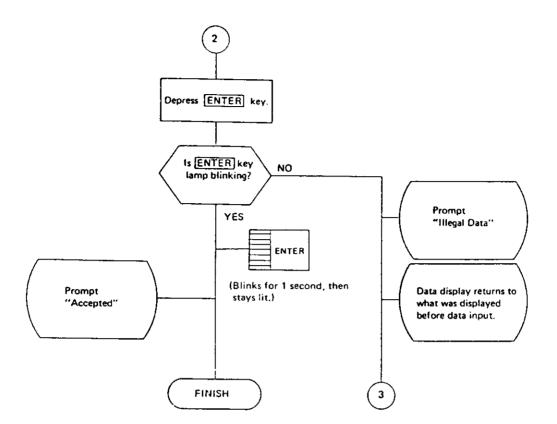
After specifying Clock and Calendar Class with the operation in Subsection 4.3.2, the following settings can be entered:

- Item 1) Clock
- Item 2) Calendar
- Item 3) Daylight Save Time
- item 4) Holiday List

4.3.10.1 Clock Programming (Item 1)

Feature: Setting system clock





Number ltem Enter

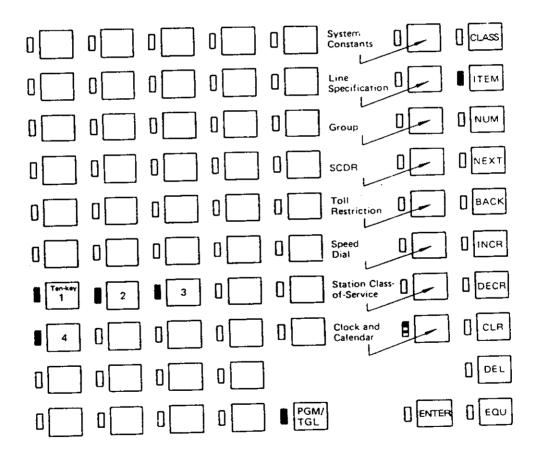
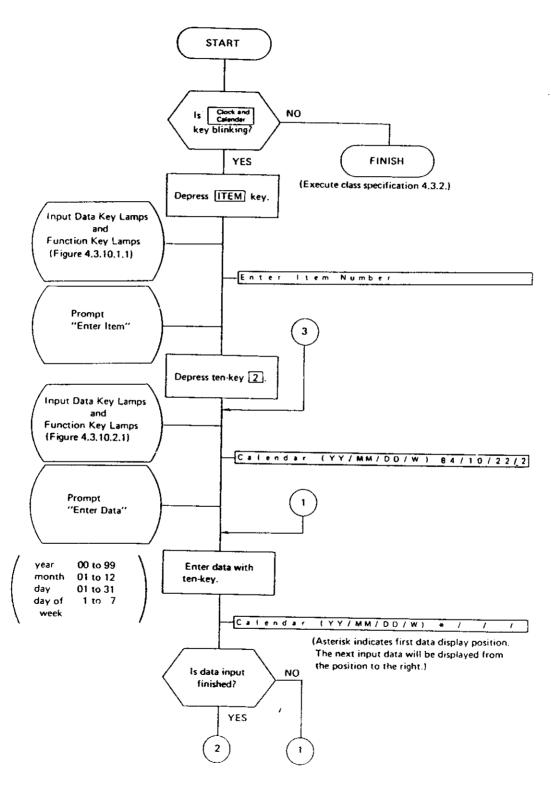
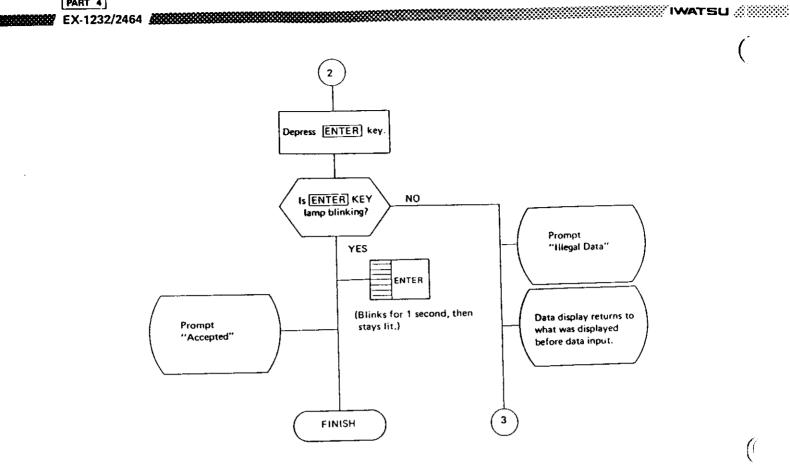


Figure 4.3.10.1.1

4.3.10.2 Calendar Programming (Item 2)

Feature: Setting system calendar







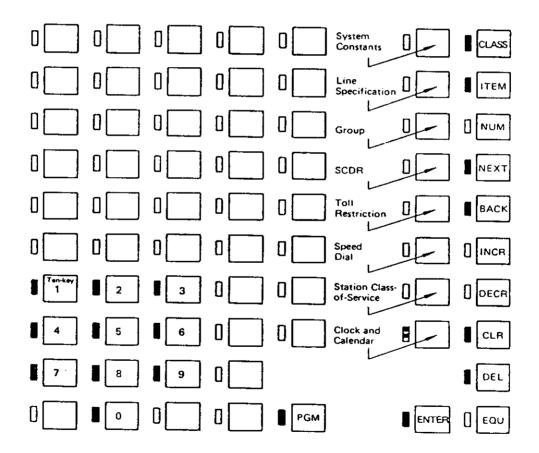
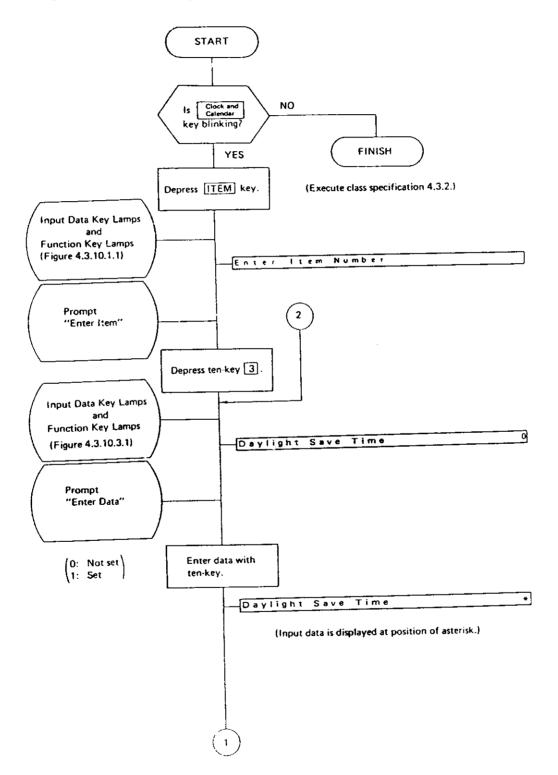
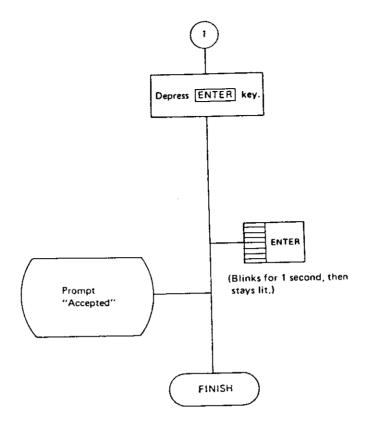


Figure 4.3.10.2.1

4.3.10.3 Daylight Save Time Programming (Item 3)

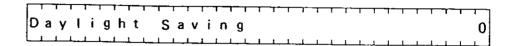
Feature: Setting whether to use daylight save time





(7

Display



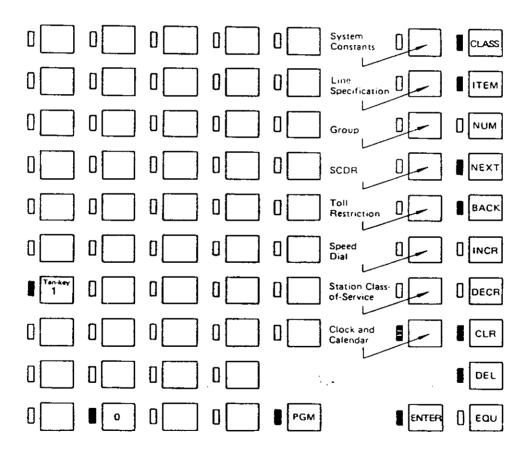
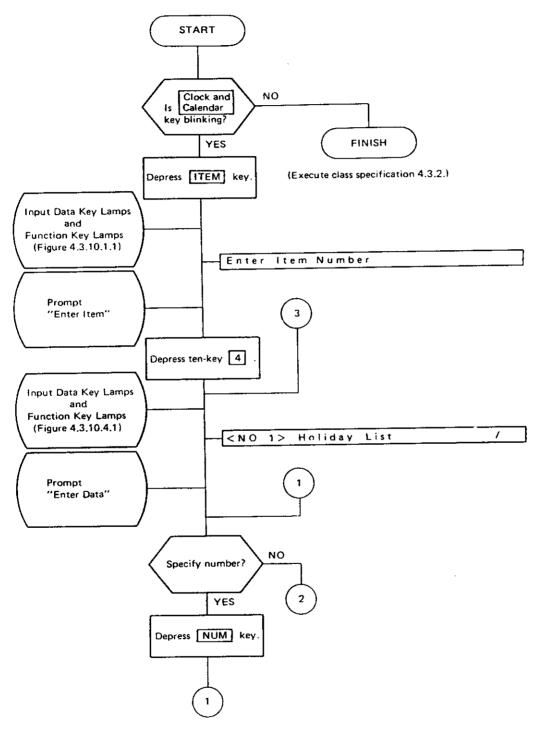
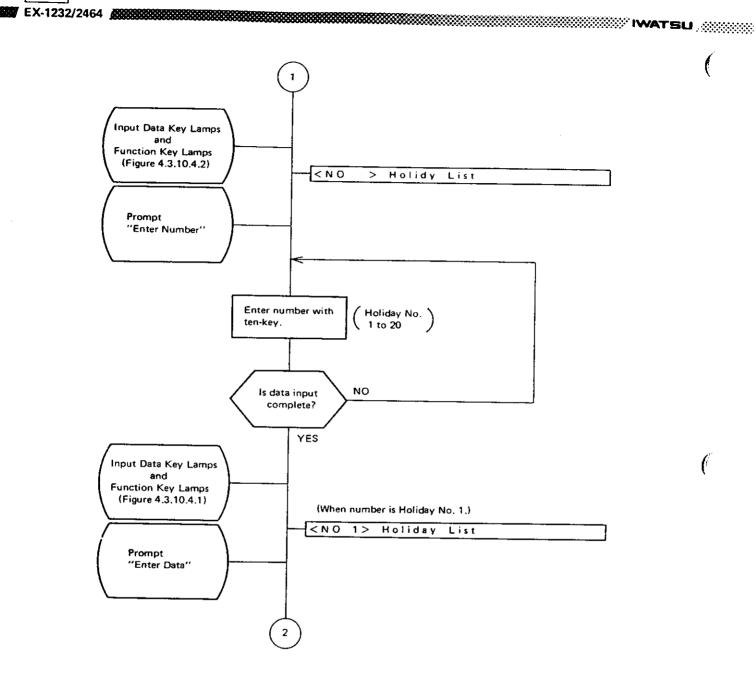


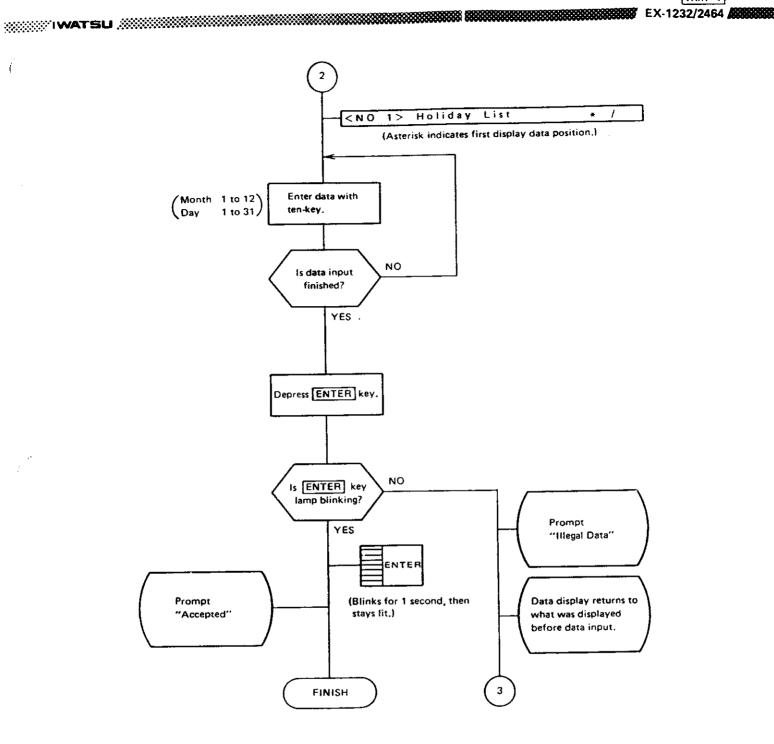
Figure 4.3.1G.3.1

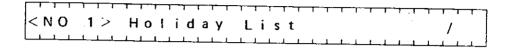
4.3.10.4 Holiday List (Item 4)

Feature: Setting Holiday List









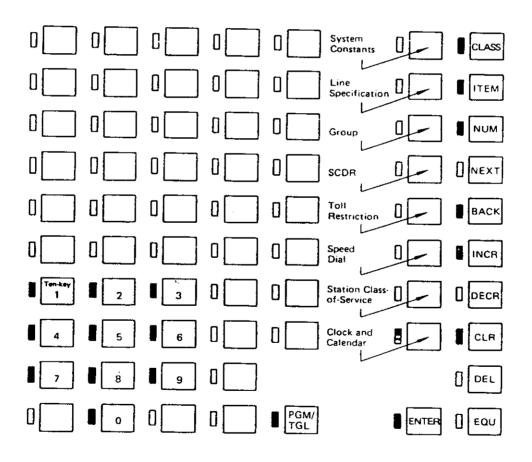


Figure 4.3.10.4.1



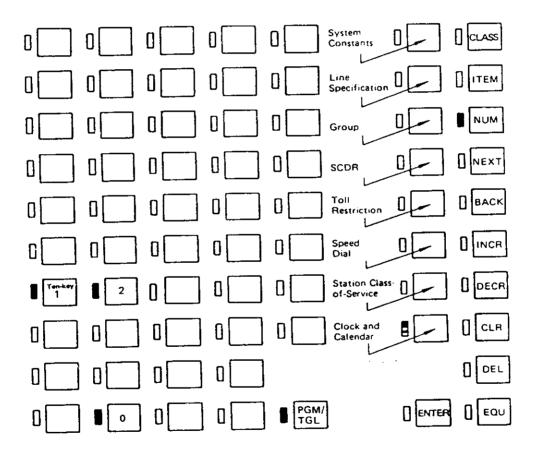
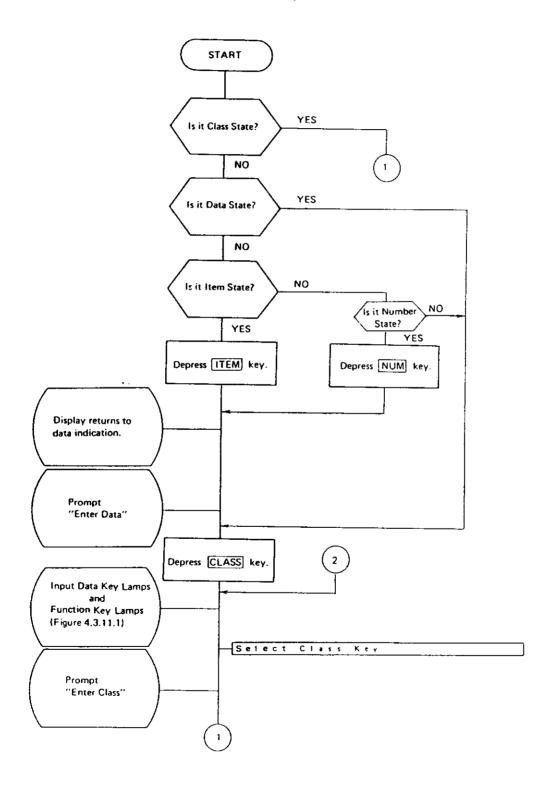
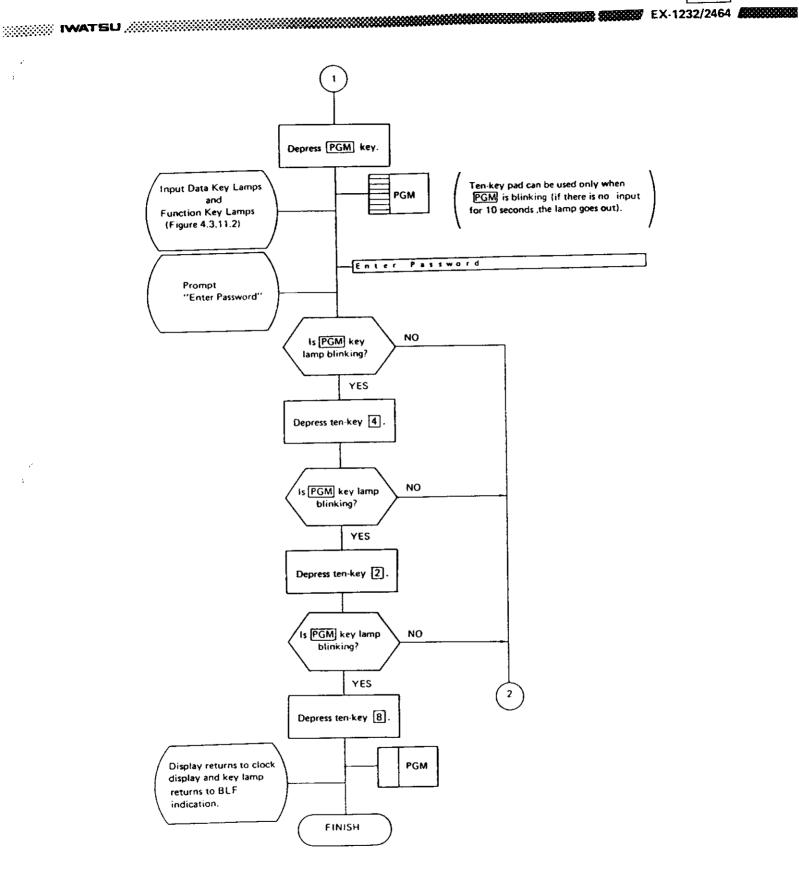


Figure 4,3.10.4.2

4.3.11 Return to Ordinary Mode

Feature: Return from Programming Mode to Ordinary Mode



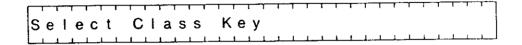


Some function keys light or blink when the mode changes from Programming Mode to Ordinary Mode The following are examples:

- a) During Night Mode Set, the NIGHT key lamp lights.
- b) For Attendant Recall, the RCL key lamp blinks.
- c) When Attendant is Paging, the key that blinks depends on the call.

For ZONE calls, ZONE 1 , ZONE 2 , or ZONE 3 key lamp blinks

For GROUP calls, GROUP 1 , GROUP 2 , or GROUP 3 , GROUP 4 key lamp blinks



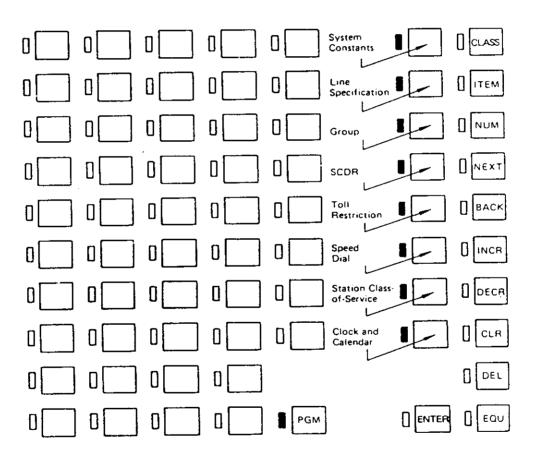
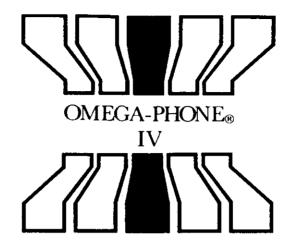


Figure 4.3.11.1

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Operation flow symbol	
	Start or end
	Display
	Decision or verification
	Execution
	Status description or comment
	Additional explanation
	Continue
	(See Table 2.2.3.1 for lamp indication.)

Figure 4.3.1

EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL

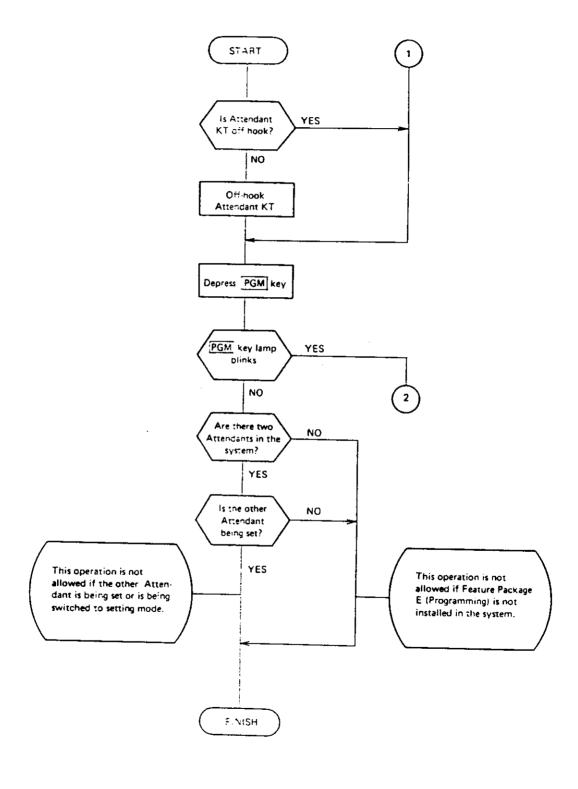


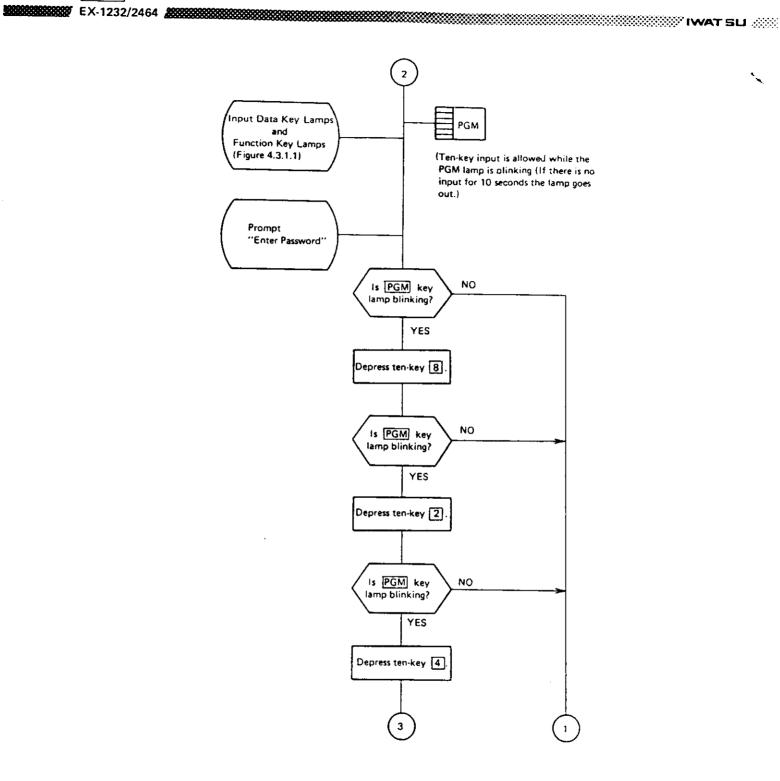
4.3 PROGRAMMING OPERATION

This section describes the entering of system data according to system data class and item, using flow charts with the operation flow symbols shown in Figure 4.3.1.

4.3.1 **Enter Programming Mode**

Operation to switch Attendant Console from Ordinary Mode to Programming Mode. Feature:





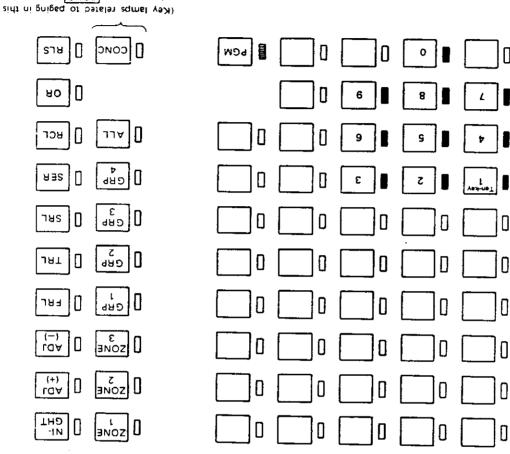
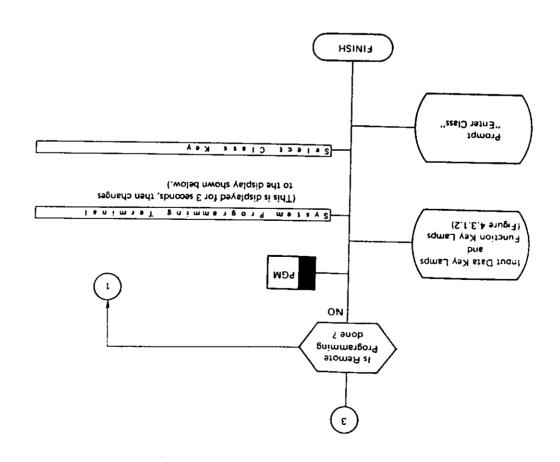
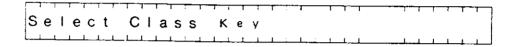


Figure 4.3.1.1 Password

column except CONC blink during AT paging, MIGHT key lamp lights when set and goes out when reset.)





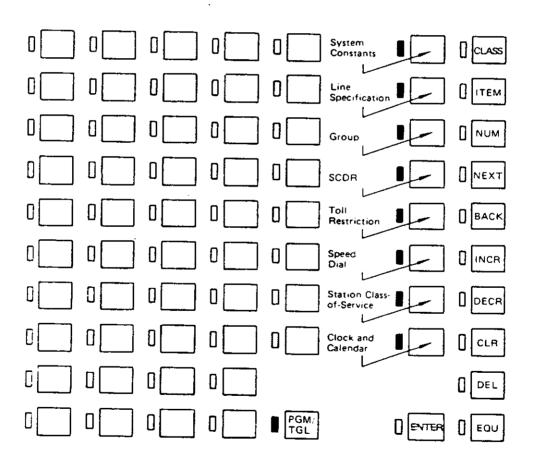
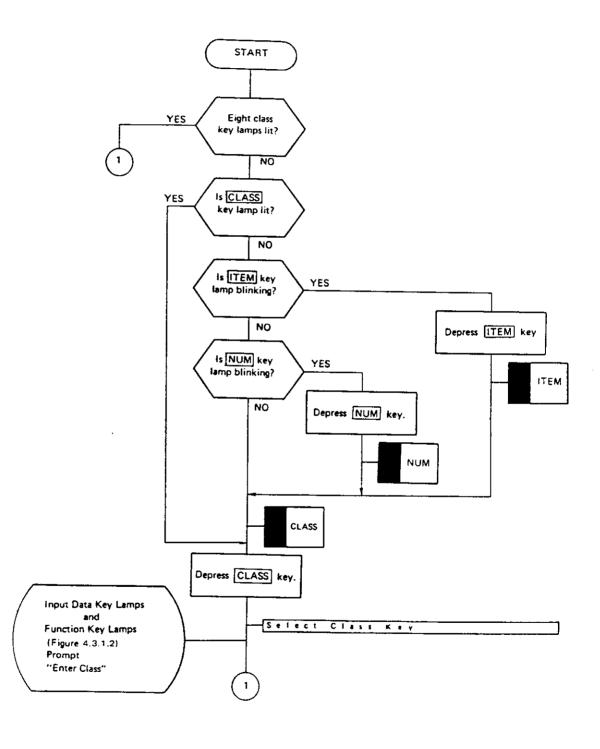
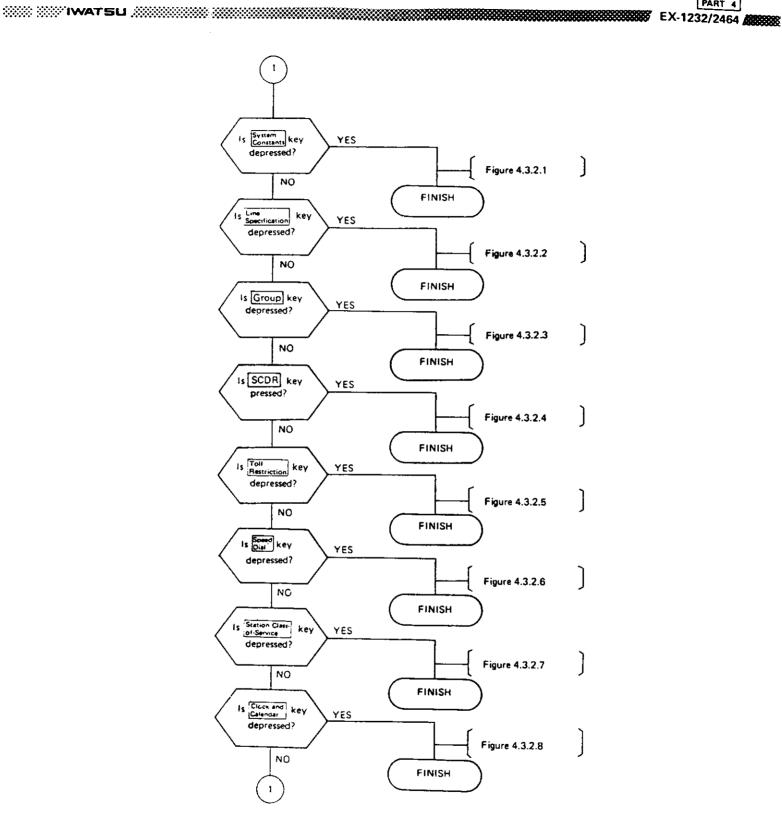


Figure 4.3.1.2

4.3.2 **Programming Class Select**

Feature: Operation to specify class.





Timeout Hold (seconds) 3 0

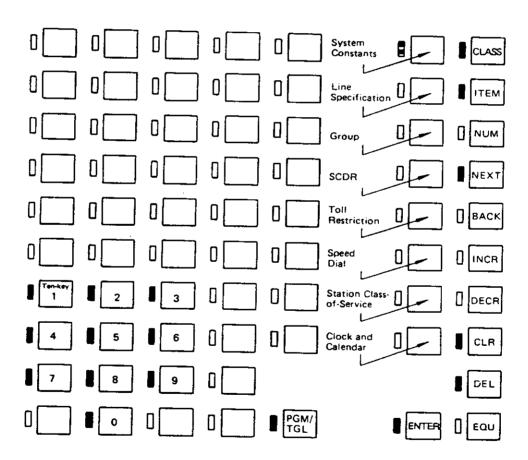
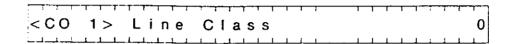


Figure 4.3.2.1



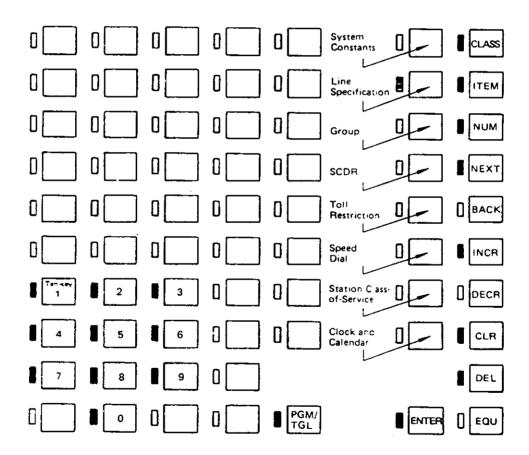
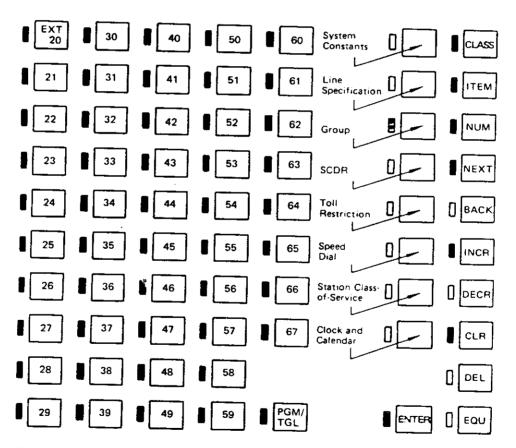


Figure 4.3.2.2

1 > I C M Master Group

Key Lamp

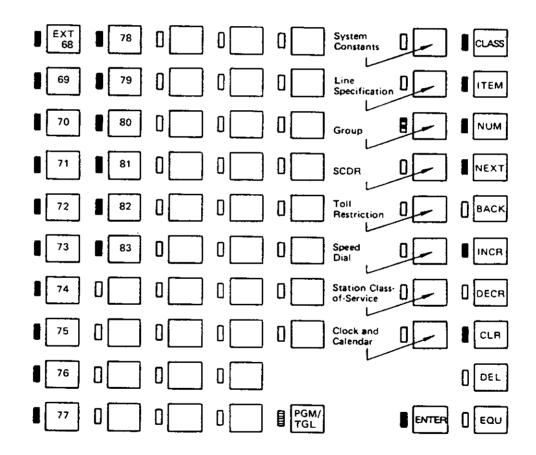


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.2.3.a

<Group 1- 1> ICM Master Group

Key Lamp



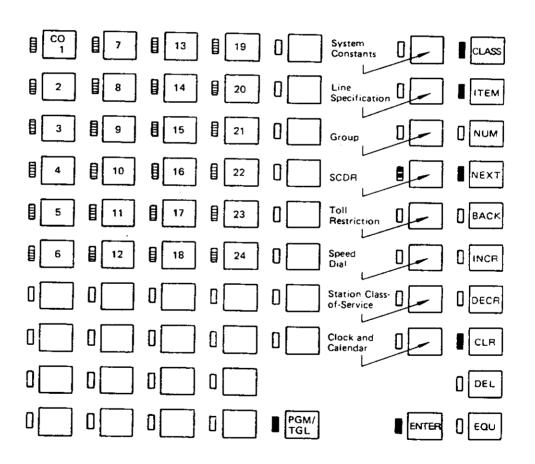
Note: Data is indicated on the key lamp assigned to the EXT key.

Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.2.3.b

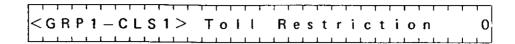
SCDR Print Out CO

Key Lamp



Note: Data is indicated on the key lamp assigned to CO key of input data keys.

Figure 4.3.2.4



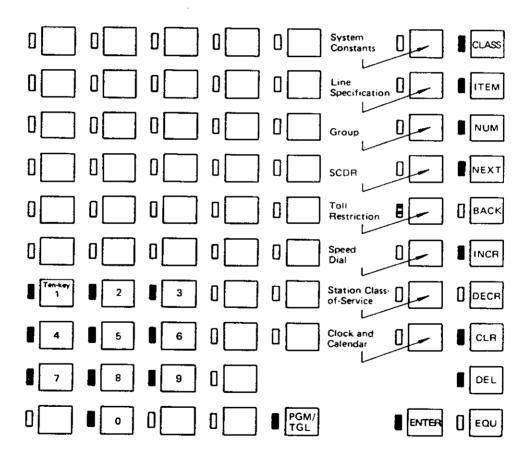
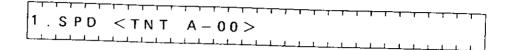


Figure 4.3.2.5



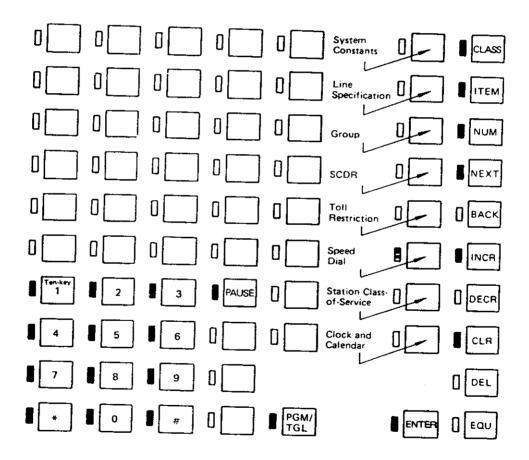
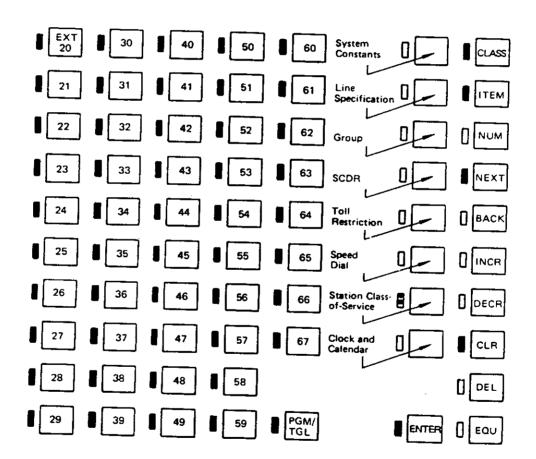


Figure 4.3.2.6

Tenant Group В

Key Lamp

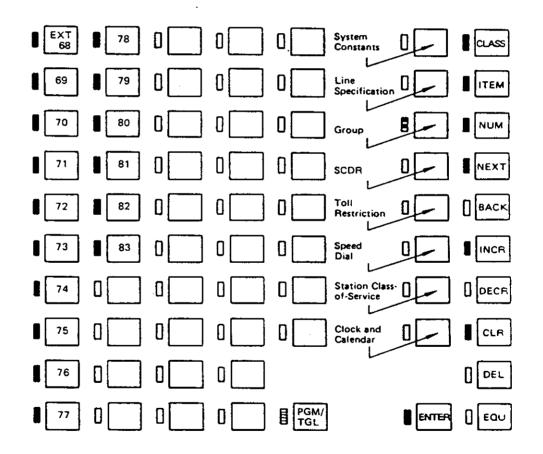


Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the normal-side mode of the input data keys.

Figure 4.3.2.7. a

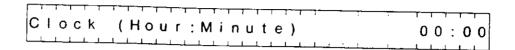
1. Tenant Group В

Key Lamp



Note: Data is indicated on the key lamp assigned to the EXT key. Key lamp indications are applicable to the reverse-side mode of the input data keys.

Figure 4.3.2.7. b



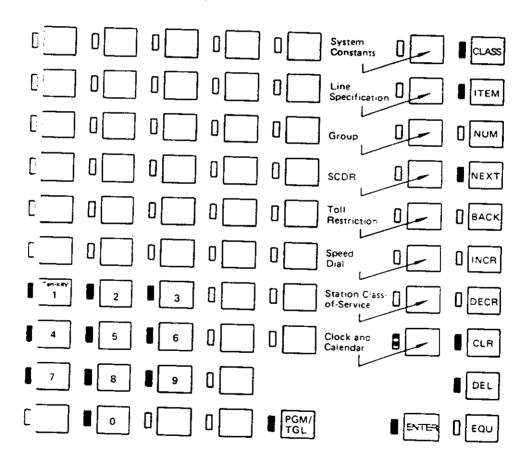


Figure 4.3.2.8

1WAT⊆U

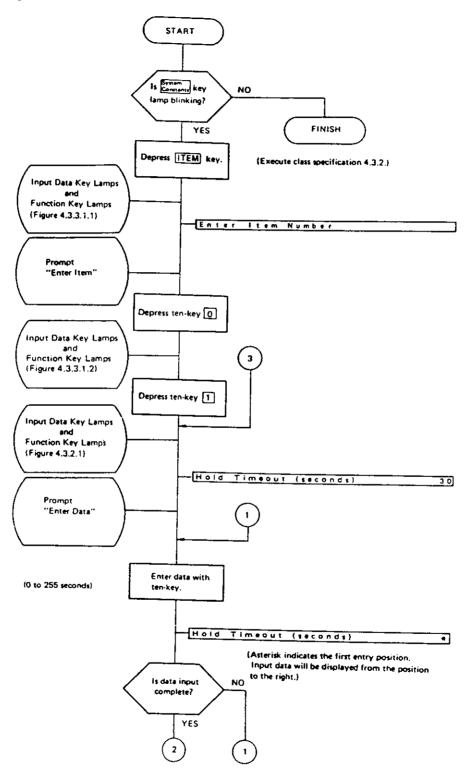
4.3.3 Programming of System Constants

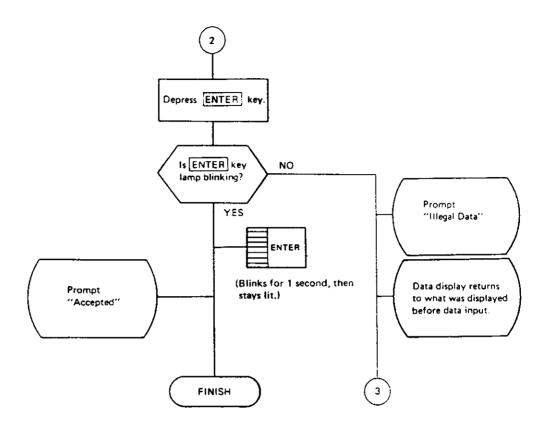
When System Constants Class is set with the operation in 4.3.2, the following may be entered:

- Item 1) Hold Timeout
- Item 2) Sender Timeout
- Item 3) Page Timeout
- Item 4) Hold Recall Timeout
- Item 5) Camp on Timeout
- Item 6) Callback Timeout
- Item 7) Automatic Answer Time
- Item 8) Attendant Intercept (No Answer)
- Item 9) Master Group Hunt Timeout
- Item 10) PBX Outgoing Specification Code
- Item 11) Overflow Transfer Minimum
- Item 12) Overflow Transfer Extension
- Item 13) ICM Call Mode
- Item 14) External Paging Speakers
- Item 15) System Prefix
- Item 16) Automatic Pause Length
- Item 17) Timed Trunk Queuing Interval
- Item 18) Attendant Key Assignment
- Item 19) Attendant EXT Assignment

4.3.3.1 Hold Timeout (Item 1)

Feature: Setting Hold Timeout time





4.5

Enter Item Number

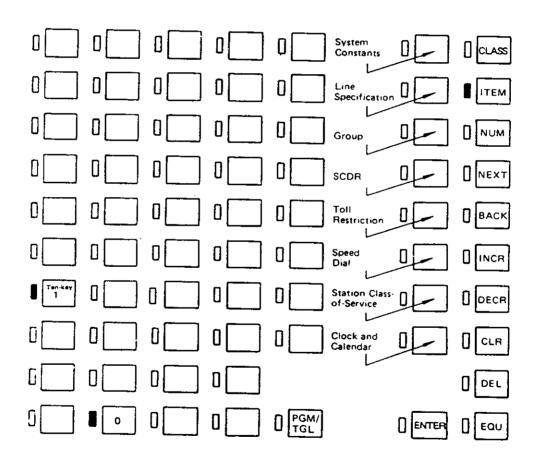


Figure 4.3.3.1.1

Enter Item Number

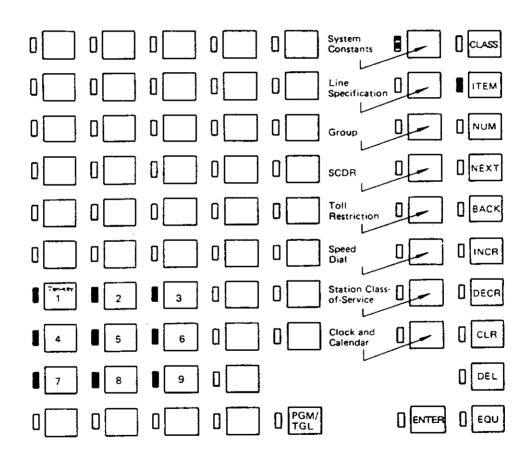


Figure 4.3.3.1.2

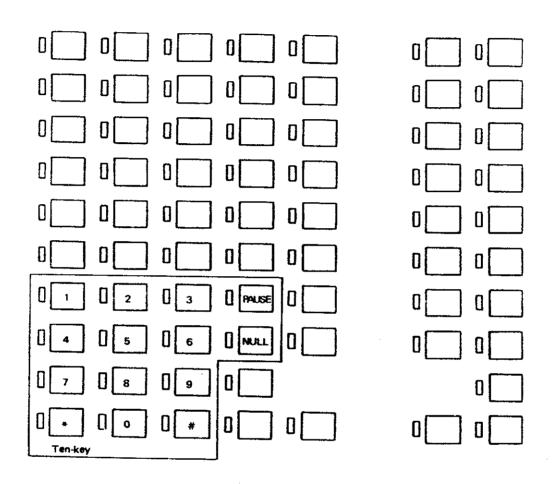


Figure 4.2.1.1.4 Ten-Key

4.2.1.2 LCD Indications

In Programming Mode, the display shows the contents of data, input prompts, and input data. The operator can check programming operation on the display. The content of the display is changed by depressing the keys. The display is changed under the following conditions:

O When displaying the input prompt:

Input prompt is displayed when the CLASS, ITEM, or PGM key is depressed.

CLASS "Select Class Key"

ITEM "Enter Item"

PGM "Enter Password"

O When the content of data changes:

The display content changes when the NEXT, BACK, INCR, or DECR key is depressed. When the NUM key is depressed, the number display is cleared and numbers can be entered. When the DEL key is depressed, one character at the right end of the data display is cleared. When new data is entered, the data display is cleared and the new data is displayed.

4.2.1.3 Key Lamp Indications

Key assignments for entering data were described in Section 4.2.1.1. In this section, the functions of key lamps are described.

1) Function key lamps

Function keys are used depending on the state. When a function key is available, the key lamps light, when it is not available, the key lamps go out. The following table shows the availability of function keys according to state.

Ļ

Table 4.2.1.3 Available Function Keys

o: Lit

States				
Key	Class	Item	Number	Data
System Constants	0			
Line Specification	0			
Group	0	The key lamps of the eight class keys are always blinking when entering data of the specified class. The blinking of the key indicates the class being entered and does not mean that the key is avail-		
SCDR	0			
Toll Restriction	0			
Speed Dial	0	able.		
Station Class-of-Service	0			
Clock and Calendar	0			
ENTER			o(TGL)	○(TGL)
PGM/TGL	o (PGM)			
CLASS				0
ITEM		0	-	0
NUM			0	0
NEXT	-			0
BACK				0
INCR				0
DECR				0
CLR				0
DEL				0
EQU				0

In Data State, the Function Key lamps show the keys that can be used for the data item. The following describes the key lamps go out.

- a) The NUM key lamp goes out when there is no number in the specified setting.
- b) The NEXT key lamp goes out when the Item Number of the specified setting is maximum.
- c) The BACK key lamp goes out when the Item Number of the specified setting is minimum.

- d) The INCR DECR and EQU key lamps go out when there are no numbers in the specified setting. (
- e) The INCR key lamp goes out when the Number of the specified setting is maximum.
- f) The DECR and EQU key lamps go out when the Number of the specified setting is minimum. The EQU key lamp goes out when the data of the previous Number is not valid for the current setting or the data format is different from the previous Number.
- g) The DEL key lamp goes out when the data displayed on the LCD are all cleared or the data is not displayed on the LCD.

2) Input data key lamps

The Input Data key lamps also light when the keys are available and go out when they are not available.

With some data, the key lamp of Input Data Keys changes when the key is depressed. This occurs when data is displayed on the Input Data Key Lamps. In such cases, a key lamp lights when there is not set and blinks when there is set.

When data is entered for such a setting, the key lamp blinks after the key is pressed if it was lit and stays on if it was depressed when it was blinking. Input Data keys light when the CLR key is depressed.

The following describes how to display data on Input Data Key Lamps:

System Constants

- Overflow Transfer Extension (Item 12)
- Attendant Key Assignment (Item 18)
- Attendant EXT Assignment (Item 19)

Line Specification

- Automatic Night Assignment (Item 4)
- Individual Incoming Extension (Item 11)
- O Group (Items 1 to 3)

o SCDR

- Print Out CO (Item 1)
- Print Out Extensions (Item 2)

Station Class-of-Service

- Tenant Group B (Item 1)
- Secretary Attribution (Item 2)
- Protected Attribution (Item 3)
- Executive Attribution (Item 4)
- Versaphone Attribution (Item 5)
- Busy Call Forward (Item 6)
- Message Attribution (Item 7)
- Quick Mode Attribution (Item 8)
- Off-Hook Signal Deny (Item 9)

- Off-Hook All-Call Deny (Item 10)
- All-Call Deny (Item 11)
- Hold Recall Deny (Item 12)
- Speed Dial Access Deny (Item 13)
- Toll Speed Dial Access Deny (Item 14)
- CO Auto-Answer Deny (Item 14)
- ICM Auto-Answer Deny (Item 15)
- Paging Call Access Deny (Item 16)
- Call Forward Deny (Item 17)
- Do not Disturb Deny (Item 18)
- Optimized Call Routing Access Deny (Item 20)
- Equal/SCC Access Deny (Item 21)
- Pickup Restriction (Item 25)
- KT Key Assignment (Item 26)

3) Blinking of lamp when Function Key is depressed

The ENTER key lamp blinks for 1 second when the input data is valid and is registered. This enables the operator to verify registration.

4.2.1.4 **Prompts**

A prompt is voice information service. It either tells the operator the next operation or is a response to an operation just performed. A prompt is issued from the Attendant KT speaker when VSCU-M, Feature Package is installed. The operator should perform the following upon receiving a prompt:

- a) "Enter Password"
 Enter password "428" and return to Ordinary Mode.
- b) "Enter Class"
 Select class and depress the key.
- c) "Enter Item"

 Enter the item number.
- d) "Enter Number" Enter the specified number.
- e) "Enter Data" or "Illegal Data" Enter data to be input.
- f) "Accepted"
 Go to next operation.

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The execution of a function when a Function Key is depressed is verified with the Confirmation Tone for Attendant issued from the Programming Terminal. A tone is issued when the NEXT, BACK, INCR, DECR, CLR, DEL, or EQU key is depressed.

4.2.2 How to Program

System data is input as follows:

- 1) Specify class to be input.
- 2) Specify item to be input. Specify Number if the item has Numbers.
- 3) Enter data with the specified data key.
- 4) Depress ENTER to register the data.

A single item may be input in this way. If there are many items to be input, however, this method is not very efficient. In such cases, the Function Keys should be used. This section describes the use of Function Keys for such purposes.

4,2.2.1 Searching for Data

The <u>NEXT</u> and <u>BACK</u> Function Keys are useful when searching for items or verifying the content after selecting the data class.

The NEXT and BACK keys change the item in the class. The NEXT key changes to larger items and the BACK key changes to smaller items.

Example: When the NEXT key is depressed while the Hold Timeout (Item 1) data is displayed on the LCD, as shown in Figure 4.2.2.1.1 in System Constants Class, the display changes to the Sender Timeout setting, shown in Figure 4.2.2.1.2, which is the next item.



Figure 4.2.2.1.1

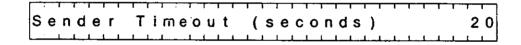


Figure 4.2.2.1.2

The display returns to Figure 4.2.2.1.1 when the BACK is depressed while Figure 4.2.2.1.2 is displayed.

The [NCR] and DECR keys change the Number within items in the same manner as the NEXT and BACK keys change items within a Class. These keys allow the display to be changed within the range of Numbers within an item and enable to verify the data.

Example: When the INCR key is depressed while data for EXT 25 is displayed, as shown in Figure 4.2.2.1.3, when setting the Toll Dial Class of Restriction (Item 22) of Station Class-of-Service Class, the data changes to the next Number, EXT 26, as shown in Figure 4.2.2.1.4.

Figure 4.2.2.2.1

(seconds)



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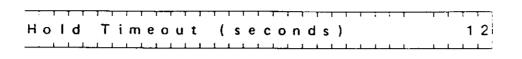


Figure 4.2.2.2.2

The DEL key is depressed as many times as there are displayed digits to cancel the numbers. This function can be used to cancel part of a number and reenter new digits.

To change the SCC Office Code data "0P52019558500" shown in Figure 4.2.2.2.3 to "0P52019558589", depress the DEL key twice to change the display to Figure 4.2.2.2.4 and reenter the last two digits.

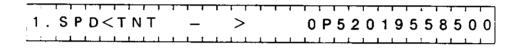


Figure 4.2.2.3

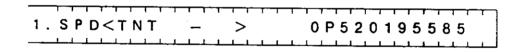
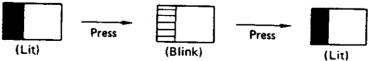


Figure 4.2.2.2.4

2) When displaying data on Input Data Key lamps

When an incorrect Input Data Key is depressed, just depress the key again to return to the previous data indication.

A key lamp that is lit changes to blinking when depressed once and back to steadily lit when depressed again. See Figure 4.2.2.3.4.



See and Not See of data are indicated by blinking and lighting of the key lamps.

Data is changed by depressing a key and changing the status of the key lamp.

For some items, if an error is made, the key need not be depressed once again. The previous key lamp lights (not set) automatically when a new key is depressed.

4.2.2.3 Deletion of Data

Data on the display can be cleared by depressing the Clear key. When the data is indicated on the display.

1) Data indication on the Display

When the DLR key is depressed while the Speed Dial Class is Station Speed Dial.

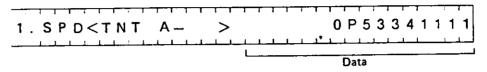


Figure 4.2.2.3.1

is displayed, then the following initial value (no function) is displayed.

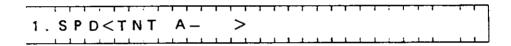


Figure 4.2.2.3.2

For a setting that displays data on the LCD, clear the data with the DEL key and register. This is the same as depressing the CLR key.

2) Data indication on the Input Data Key lamps.

All the Input Data Key lamps light (not set) even when data is blinking (set):

Some items differ from the default.

For example, when the CLR key is depressed while the data indication is for SCDR Data Class Prin Out CO default data, as in Figure 4.2.2.3.3, the data indication is as shown in Figure 4.2.2.3.4.

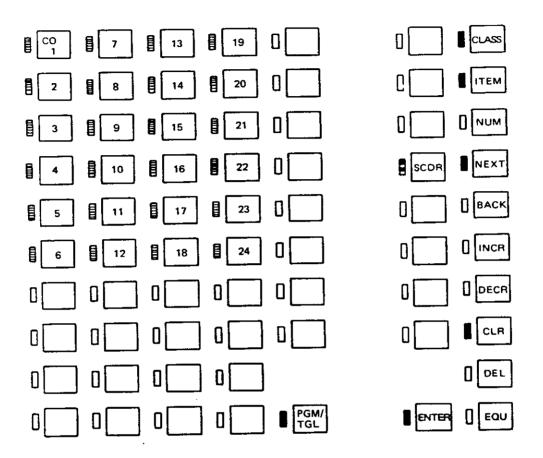


Figure 4.2.2.3.3

(

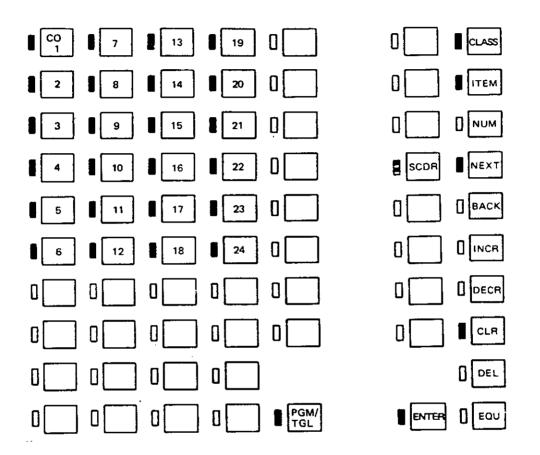


Figure 4.2.2.3.4

4.2.2.4 Modifying Data in Sequence

For items with Numbers, the same data can be input continuously. Also, Numbers can be kept constant while item is changed.

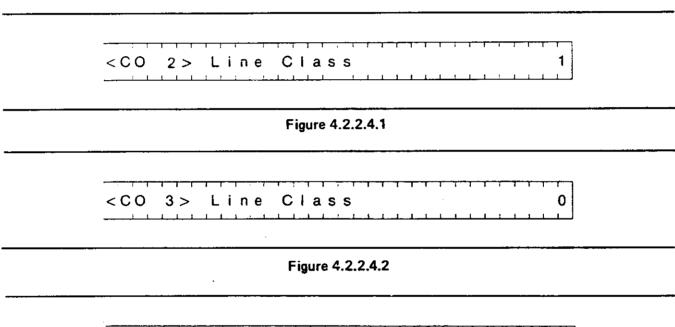
1) Registering the same data continuously

For example, to enter the Line Class (Item 1) of Line Specification Class, proceed as follows:

Depress the INCR key when the data for CO 2 is as shown in Figure 4.2.2.4.1 to display CO 3, shown in Figure 4.2.2.4.2.

Then depress the EQU key to display the CO 2 data (Figure 4.2.2.4.3).

Repeat this operation to continuously register the same data.



<CO 3> Line Class 1

Figure 4.2.2.4.3

2) Registering the same Number while changing the item

Some Numbers are common among items as with Line Specification. With Class, the items can be changed without changing the Number. For example, if the NEXT key is depressed when setting Line Class (Figure 4.2.2.4.4), the item changes to Tenant Group (Figure 4.2.2.4.5) but the Number, CO 1, does not change.

The same Number for each item can be easily entered in this manner.

This method can be applied to Line Specification and Station Class of service.

Figure 4.2.2.4.7

4.2.3 System Data Printout

4.2.3.1 Printout Condition

The content of each system data item can be displayed on the Programming Terminal in Programming Mode. To view all system data at once, however, print the system data from the SCDR. Printing the system data from the SCDR enables verification of the contents and retention of a data history for future changes.

Note that all system functions halt when system data is printed. Refer to Section 2.3.S.12, System Data Printout, for operation.

4.2.3.2 Printout Format

A part of the printed system data format is shown in the following page.

• = X -	1232/2464 System Software V1.0 system	m Data Listing •
_	_	86/ 5/21/3 12 : 30
* ≥yste	em Constants •	
1.	10001102,	30
2.		
3.	23	20
4.	Hold Recall Timeout (seconds)	10
5.	Camp On Timeout (seconds)	20
6.	Callback Timeeout (seconds)	30
7.	Automatic Answer Time (seconds)	20
8.	Attendant Intercept Time (seconds)	12
9.	Master Group Hunt Timeout (seconds)	20
10.	PBX Outgoing Specification Code	20
	Code No	23
	2 3	23 4 123
	4 5	235
11.	Overflow Transfer Minimum Attendant	1111
12.	Overflow Transfer Extension Attendant	3
	1 2	23 , 20
13.	ICM Call Mode Tenant	20
	A B	1
14.	External Paging Speakers Tenant	1
	A	2
15.	System Prefix	3
16.	Automatic Pause Length	1
17.	Timed Trunk Queuing Interval	\$
18.	Attendant Key Assignment Attendant 1	16
19.	2 DSS21 DSS22 DSS23 DSS24 3 DSS31 DSS32 DSS33 DSS34 4 DSS41 DSS42 DSS43 DSS44 5 DSS51 DSS52 DSS53 DSS54 6 DSS61 DSS62 DSS63 DSS64 7 SPD 6 SPD 7 SPD 8 SPD 9	5 6 7 8 9 10 DSS 5 DSS 6 DSS 7 DSS 8 DSS 9 DSS10 DSS15 DSS16 DSS17 DSS18 DSS19 DSS20 DSS25 DSS26 DSS27 DSS28 DSS29 DSS30 DSS35 DSS36 DSS37 DSS28 DSS39 DSS40 DSS45 DSS46 DSS47 DSS42 DSS49 DSS60 DSS55 DSS66 DSS57 DSS28 DSS59 DSS60 SPD 0 SPD 1 SPD 2 SPD 3 SPD 4 SPD 5 SPD10 SPD11 SPD12 SPD13 SPD14 SPD15 SPD20 SPD21 SPD22 SPD23 SPD24 SPD25 SPD30 SPD31
	Attendant 1	20
	2	20 21
	· · · · · · · · · · · · · · · · · · ·	

Figure 4.2.3.2.1 System Data Format (1/4)

4.2.2.5 Key Assignment

Keys on a key telephone or Versa Phone and DSS keys on an Attendant can be freely assigned by setting from the programming terminal.

4.2.2.5.1 Key Telephone/Versa Phone Key Assignment

- 1) Table 4.2.2.5.1.A shows the keys that can be assigned to a key telephone or Versa Phone and their corresponding key code numbers used for setting.
- 2) The ICM and FEAT keys are fixed keys.
- 3) When assigning the PAGE (Press Page) key, the key position is fixed to Key No. 6. It cannot be assigned to a key in another position.
- 4) Setting is made by Class 7 Station Class of Service Item 27 key telephone Key Assignment.
- 5) Figure 4.2.2.5.1.A and 4.2.2.5.1.B show the default key assignment for key telephones and Versa Phones respectively.

Table 4.2.2.5.1.A

Key Message	Key	Key Code No.
ADD	DD Add On Conference Key	
FLSH	FLSH Flash Key	
FWD	Call Forward Key	02
HOLD	Hold/DND Key	03
MSG	Message Key	04
PARK	Call Park Key	05
SPKR	Speaker Key	06
TRN	Transfer Key	07
P. PAG	Press Page Key	08
CO nn	Direct COL Key	1
FLT	Floating COL Group Access Key	20
FLT 1	Floating COL Group 1 Direct Access Key	21
FLT 2	Floating COL Group 2 Direct Access Key	22
FLT 3	Floating COL Group 3 Direct Access Key	23
FLT 4	Floating COL Group 4 Direct Access Key	24
FLT 5	Floating COL Group 5 Direct Access Key	25
FLT 6	Floating COL Group 6 Direct Access Key	26
FLT 7	Floating COL Group 7 Direct Access Key	27
OPT	Optimized Routing Access Key	28
DSS mm	Direct Station Select Key	3
D. PAG n	Direct Page Key	4
HNT n	Direct Master Hunt Group Key	5
SPD nn	Direct Speed Dial Key	6
DSP	Display Key	70
CALC	Calculator Key	71

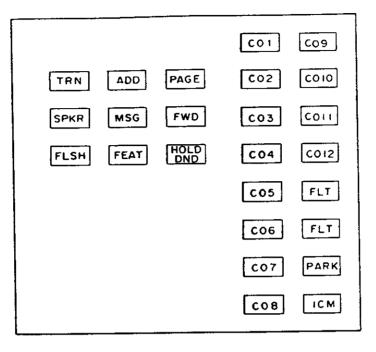


Figure 4.2.2.5.1.A KT Default Key Assignment

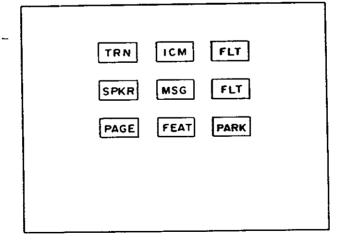


Figure 4.2.2.5.1.B VP Default Key Assignment

- 6) Key No. Positions on a key telephone and Versa Phones are shown in the following:
 - KT key No. position

9 17

18

20

21 22 Ten Key

23 ICM

Figure 4.2.2.5.1.C

• Versa phone key No. position

Ten Key

Figure 4.2.2.5.1.D

4.2.2.5.2 Attendant Key Assignment

- 1) Those keys that can be assigned to the DSS keys on an Attendant and their corresponding key code numbers used for setting are shown in the following:
 - DSS mm Direct Station Select Key
 HNT n Direct Master Hunt Group Key
 SPD nn Direct Speed Dial Key
- 2) Setting is made by Class 1 System Constants Item 18 Attendant Key Assignment.
- 3) Figure 4.2.2.5.2.A shows the Key Position numbers on the Attendant.

Normal-side mode: 1 to 48 Reverse-side mode: 49 to 96

4) Default DSS Key assignments on an Attendant are as shown below.

Normal-side mode:

Keys 1 to 48, DSS #20 to #67

Reverse-side mode:

Keys 1 to 16, DSS #68 to #83

Keys 17 to 48, SPD #00 to #31

 					4
2 3 4 5 6 7 8	11 12 13 14 15 16 17 18	21 22 23 24 25 26 27 28 29	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48	
50 51 52 53 54 55 56 57	60 .61 .62 .63 .64 .65 .66 .67	70 71 72 73 74 75 76 77	80 81 82 83 84 85 86 87	99 91 92 93 94 95	

Figure 4.2.2.5.2.A

4,2,2,5,3 Key Assignment Method

Assignment of key telephone, Versa Phone, and DSS keys on an Attendant are made in the following manner.

- 1) Specify the Extension or Attendant number.
- 2) Specify the key position.

Key telephone, Versa Phone:

Refer to section 4.2.2.5.1 6)

Attendant:

Refer to section 4.2.2.4.2 4)

- 3) Depress Clear key to clear the present key assignments.
- 4) Input the key code number of the key to be assigned for the ten keys of the Input Data Keys.

Key telephone, Versa Phone:

Refer to section 4.2.2.5.1 1)

Attendant:

Refer to section 4.2.2.5.2 2)

5) Input various numbers for the assigned keys, if necessary.

Direct COL Key

CO 1 to CO 24

Direct Station Select

EXT20 to EXT83

Direct Page Key

0 to 9

Direct Master Hunt Group Key

1 to 4

Direct Speed Dial Key

00 to 99

Direct Paging numbers are as shown below:

- 0 Αli
- 1 Zone 1
- 2 Zone 2
- 3 Zone 3
- 4 All Zone
- 5 All Group
- 6 Group 1
- 7 Group 2
- 8 Group 3
- 9 Group 4

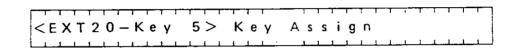
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4.2.2.5.3.1 Explained in the following are some examples of actual key assignment procedures.

a. Assignment of the ADD key (MSG → ADD)

<EXT20-Key 5> Key Assign MSG

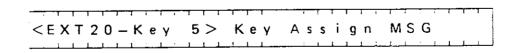
Depress the CLR key.
 Key Message on the display is cleared.



2. Depress the ten key 0 of the Input Data Keys. 0 appears on the display.



3. Depress the ten key 0 of the Input Data Keys. Key Message ADD appears on the display.



4. Depress the **ENTER** key. Registration has been completed.

b. Key assignment of SPD (Speed Dial) #37. (CO #1 → SPD #37)



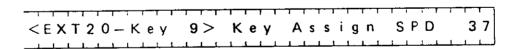
Depress the CLR key.
 Key Message on the display is cleared.



2. Depress the ten key 6 of the Input Data Keys. Key Message SPD appears on the display.



3. Depress the ten keys 3 and 7 of the Input Data Keys to register Speed Dial #37.



4. Depress the ENTER key.
Registration has been completed.

c. Key assignment of DSS (Direct Station Select) #25. (CO #1 → DSS #25)

<EXT20-Key 9> Key Assign COL

Depress the CLR key.
 Key Message on the display is cleared.

<EXT20-Key 9> Key Assign

2. Depress the ten key 3 of the Input Data Keys. Key Message DSS appears on the display.

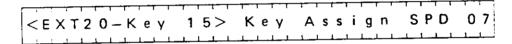
<EXT20-Key 9> Key Assign DSS

- 3. Depress the extension key 25 of the Input Data Keys to register DSS #25. Extension #25 lamp blinks.
- 4. Depress the **ENTER** key. Registration has been completed.

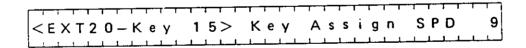
d. Changing the key assignment from DSS #25 to DSS #35.



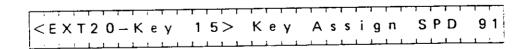
- Depress the extension key 35 of the Input Data Keys. Extension #25 lamp changes from flashing to steady lighting and extension #35 lamp begins flashing.
- 2. Depress the ENTER key.
 Registration has been completed.
- e. Changing the key assignment from SPD #07 to SPD #91.



1. Depress the ten 9 of the Input Data Keys. The display changes into the following:



2. Depress the ten key 1 of the Input Data Keys.



3. Depress the ENTER key.
Registration has been completed.

4.2.2.5.4 Restriction on key assignments

1. No duplicated assignment of the following keys are permitted.

When changing these key assignments, clear the preset key assignment first, and then make a new assignment once.

ADD	Add on Conference Key
FLSH	Flash Key
FWD	Call Forward Key
HOLD	Hold/DND Key
MSG	Message Key
PARK	Call Park Key
SPKR	Speaker Key
TRN	Transfer Key
P. PAG	Place Page Key
COL nn	Direct COL keys on stations which terminate a COL No. nn
DSS mm	Direct station select keys on stations which terminate a DSS No. mm.

4.2.2.6 Optimized Call Routing

4.2.2.6.1 General Description

This feature analyzes dial data related to CO access, and seizes the lowest-cost CO/PBX Line in accordance with traffic and time at the moment of CO access. In the case of a tie line, for example, a special code may be added or the unnecessary area code deleted to adapt the CO access dial to the optimum CO/PBX Line. Because the optimum CO/PBX Line depends on traffic at the time of CO access, there may be up to four groups of CO/PBX Lines that can be seized to raise the probability of seizure. The system can automatically select the optimum CO/PBX Line in these groups. All extensions may use this selective feature, with different groups within which the optimum line is selected being assigned to extensions according to the positions of extension users. This group assignment can be made as described in No. (24) "Route Advance Step" in the Station Class of Service for KT/VP, and single line telephones of paragraph 3.3.2, System Planning.

This feature also enables the user to effect a rational toll restriction, suited to the desired toll plan, by means of floating toll restriction.

4.2.2.6.2 Basic Operation of Optimized Call Routing

The basic operation of optimized call routing is described below.

Note: Understanding the basic operation of optimized call routing helps the installer in preparing plans because the functions and uses of many assignment tables used in planning are described in detail in this paragraph. Never attempt planning without understanding this paragraph.

- The subscriber presses the OPT key on the extension, or dials the optimized routing special number,
 (The extension used by this subscriber must have "allow." assigend for Optimized Call Routing.)
- 2. The subscriber then dials the telephone number of the opposite party. (Depending on the area, the prefix code 1 may have to be added before the area code or office code.)

3. From the area code and office code (or from only the office code if no area code is used), the CO (group best suited to that time is selected from the registration location called the Route Table No. The process of selecting this CO group is described in detail by dial data type.

(1) The dial data generated by the subscriber is analyzed according to the North American Dial Number Plan. The area code is first entered in the area called the input dial table (mentioned for purposes of explanation here, though it does not come up at the time of preparing the planning sheet), followed by the office code and customer code (subscriber number). This process is illustrated in Figure 4.2.2.6.2.1.

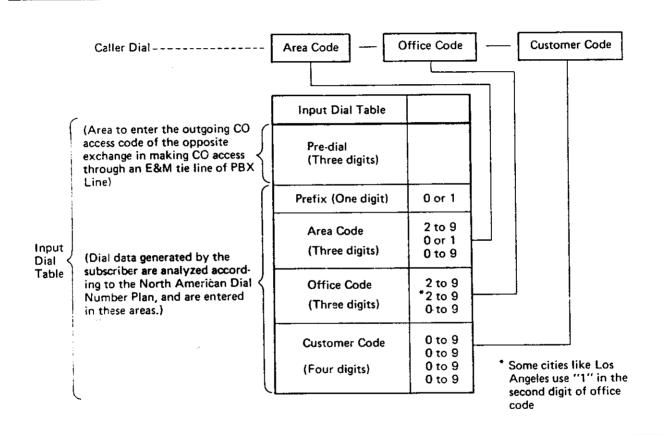
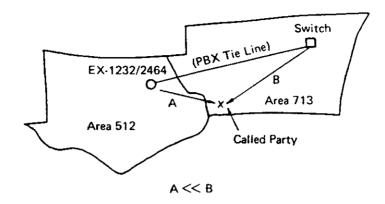


Figure 4.2.2.6.2.1 Entering Dial Data in Input Dial Table

If an E&M line or PBX Line is available between the areas to which these area codes are allocated and the EX-1232/2464 system, Co access through the switch to which the tie line or PBX line is connected in generally considered cheaper. In a case such as shown below, however, calls not routed through the tie line cost less because the actual CO line length is shorter. It is necessary, therefore, to identify the geographic positions of office codes belonging to an area code.



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(2) The system refers to the table in which are registered the area codes for areas covered by PBX tie lines or E&M tie lines. This table is called the E&M Area Code Table. If the dialed area code is not in this table, system refers to the table in which are registered the area codes for lines other than PBX tie lines or E&M tie lines. The two tables are shown in Figures 4.2.2.6.2.2(A) and (B).

Ared Code	Off Group	- 1
P1 P2 P3	Tenant A	Tenant B
200 219 300 319 400 419 500 519		
700 719 800 819 900 919		

Area Code	Roi Table	
P1 P2 P3	Tenant A	Tenant B
200 219 300 319 400 419 500 519		
700 719 800 819 900 919		

Figure 4.2.2.6.2.2(A) E&M Area Code Table Format

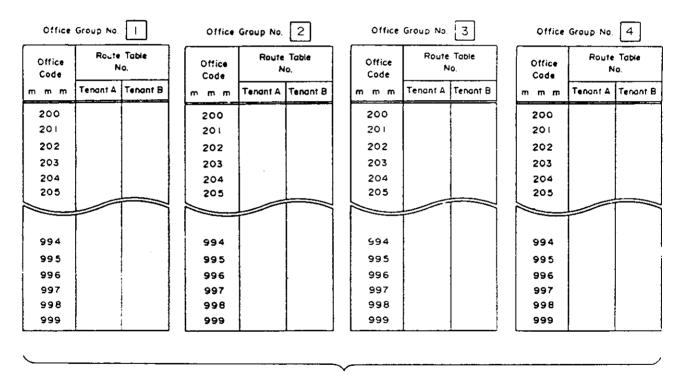
Figure 4.2.2.6.2.2(B) Area Code Table Format

Note: In the E&M Area Code Table, an E&M Office Group No. (not described in detail here because its \{ \} meaning is classified in subsequent descriptions) must be registered for each of the area codes 200 to 919.

In the Area Code Table, a Route Table No. (not described in detail here because its meaning is clarified in subsequent descriptions) must be entered for each tenant and each of the area codes 200 to 919 (not necessarily consecutively). See Figure 4.2.2.6.2.2(B).

Both tables must be filled out during planning by the installer.

(3) If the dialed area code is in the E&M Area Code Table (Figure 4.2.2.6.2.2 A), one of the tables called the E&M Office Group Tables, where PBX or E&M tie line office codes are entered in four groups, is selected according to the E&M Office Group No. registered for that area code and tenant. E&M Office Group Tables are shown in Figure 4.2.2.6.2.3.



E&M Office Group Table

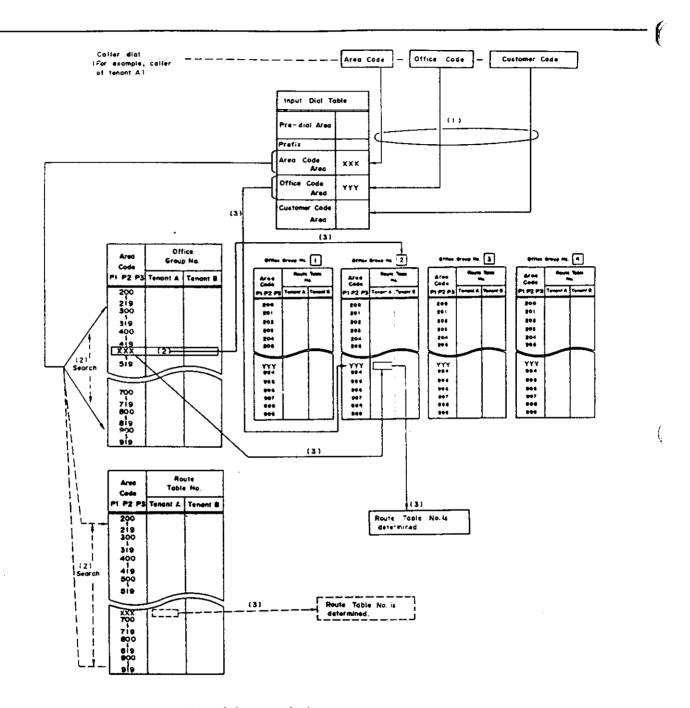
Figure 4.2.2.6.2.3 E&M Office Group Table Format

Note: In the E&M Office Group Tables, a Route Table No. must be registered for each of tenants A and B according to the office code (any codes from 200 through 999 can be registered consecutively) in the dial data. The reason that there are four E&M office groups is to make each E&M office group correspond to an E&M area code.

This table must also be filled out by the installer during planning.

The system refers to the office code registered in the selected E&M office group, and selects a Route Table No. from the location where the office code agrees with the office code registered in the input dial table (Figure 4.2.2.6.2.1) according to the type of tenant to which the caller belongs.

If the area code is not in the E&M Area Code Table, the system refers to the Area Code Table as described in item (2), example 1, and obtains the Route Table No. registered for that area code and type of tenant. The Route Table No. is obtained by going through items (1), (2), and (3). The difference in system processing between a case in which PBX or E&M tie lines are available and other cases is described in item (3) above. That is, if PBX or E&M tie lines are available, the Route Table No. is determined by the area code and office code, whereas if PBX or E&M tie lines are not available, the Route Table No. is determined by the area code only. The process up to this point is shown in Figure 4.2.2.6.2.4.



Note: (1) in this figure means item (1), example 1.

- (2) in this figure means item (2), example 1.
- (3) in this figure means item (3), example 1.

Solid lines apply if PBX or E&M tie lines are available (area codes are registered in the E&M Area Code Table). Dash lines apply if no tie lines are available (area codes are not registered in the E&M Area Code Table).

Figure 4.2.2.6.2.4 Process Through Selecting a Route Table No. (Where Area Code is Used)

As the process up to this point shows, the system first searches for a PBX or E&M tie line in the E&M Area Code Table. If there is no tie line in the E&M Area Code Table, the system refers to the Area Code Table to select the least-cost route. The Time Zones of the Route Tables can be set according to Time

The Schedule and Route Tables are described in detail below.

A Route Table No. is an index showing the location of the Route Table that must be referred to. There are three Route Tables, 0 through 2, which differ by access time zone and each is divided into eight parts. In each part, CO group numbers are registered in order to preference. The installler must fill out these tables during planning. The Time Schedule and the Route Tables are shown in Figures 4.2.2.6.2.5(A) and 4.2.2.6.2.5(B).

			Cond	lition	
Tin	ne Zone Hour	1 Weekday	2 Saturday	3 Sunday	4 Holiday
0.	0:00 to 0:59				
1.	1:00 to 1:59				
2.	2:00 to 2:59				
3.	3:00 to 3:59				
4.	4:00 to 4:59				İ
5.	5:00 to 5:59				
6.	6:00 to 6:59				
7.	7:00 to 7:59				!
8.	8:00 to 8:59				
9.	9:00 to 9:59				1
10.	10:00 to 10:59				
11.	11:00 to 11:59				<u> </u>
12.	12:00 to 12:59				1
13.	13:00 to 13:59				
14.	14:00 to 14:59				
15.	15:00 to 15:59			<u> </u>	
16.	16:00 to 16:59				
17.	17:00 to 17:59				
18.	18:00 to 18:59				
19.	19:00 to 19:59				
20.	20.00 to 20:59		<u> </u>		
21.	21:00 to 21:59				
22.	22:00 to 22:59				
23.	23:00 to 23:59				-
l		<u> </u>	<u> </u>	_1	

Note: Set Time Zone 0 to 2 according to conditions 1 to 4 and Time Zone Hour 0:00 to 23:59

Figure 4.2.2.6.2.5(A)1 Time Schedule

	~		Cond	lition	
	me Zone Hour	1 Weekday	2 Saturday	3 Sunday	4 Holiday
0.	0:00 to 0:59	2	2	2	2
1.	1:00 to 1:59	2	2	2	2
2.	2:00 to 2:59	2	2	2	2
3.	3:00 to 3:59	2	2	2	2
4.	4:00 to 4:59	2	2	2	2
5.	5:00 to 5:59	2	2	2	2
6.	6:00 to 6:59	2	2	2	. 2
7.	7:00 to 7:59	2	2	2	2
8.	8:00 to 8:59	0	0	0	0
9.	9:00 to 9:59	0	0	0	0
10.	10:00 to 10:59	0	0	0	0
11.	11:00 to 11:59	0	0	0	0
12.	12:00 to 12:59	0	0	0	0
13.	13:00 to 13:59	0	0	0	0
14.	14:00 to 14:59	0	0	0	0
15.	15:00 to 15:59	0	0	0	0
16.	16:00 to 16:59	0	0	0	0
17.	17:00 to 17:59	1	1	1	1
18.	18:00 to 18:59	1	1	1	1
19.	19:00 to 19:59	1	1	1	1
20.	20.00 to 20:59	1	1	1	1
21.	21:00 to 21:59	1	1	1	1
22.	22:00 to 22:59	1	1	1	1
23.	23:00 to 23:59	2	2	2	2

Figure 4.2.2.6.2.5(A)2 Time Schedule (Default Value)

Time Zone 0

	Ro	oute No	Tai	ble	Ro	oute No	Tai	ole	Ro	ute No	Tat	ole	Ro	ute No	Tat	le	Ro	ute No	Tal	ole	Ro	ute No	Tat . 6	ole,	Ro	No.	: Tal	ole	Ro	ute No	Ta . 8
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
Tenant A								<u> </u>													-			_	 		-			_	
Tenant B																		· -													

Time Zone 1

Time Zone 1	Ro	oute No	Tal	ble	Ro	ute No	Tal	ble	Re	oute No	Tal	ale .	Ro	ute No	Tat . 4	ole	Ro	ute	Tal	ole	Ro	ute No	Tat . 6	ole	Ro	ute No	Tal 7	ole	Ro	ute No	Tab . 8	le
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A											_						_	_	-		_	 -	_	-		<u> </u>		-	_			
Tenant B																											<u> </u>					<u></u>

Time Zone 2

Time Zone 2	Ro	oute No	Tal	ble	Ro	ute	Tal	ble	R	oute No	Tal	ole	Ro	ute No	Tat	ole	Ro	ute No	Tat . 5	oie	Ro	ute No	Tat	ole	Ro	ute No	Tat	ole	Ro	ute Tal No. 8	ble
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2 3	4
Tenant A														_			_		_	_		_	-	-	-	-		<u> </u>	-		
Tenant B																													_		·

Note 1. CO Outgoing Group Nos. shall be set in accordance with the setting of the Tenant A/B, Time Zone, Route Table Nos. and Advance Steps.

- 2. CO Outgoing Group Nos. are 1 to 7.
- 3. The default value is 0, and it has no function.

Figure 4.2.2.6.2.5(B) Route Table

(4) Assign a Time Zone (0 to 2) first according to Time Zone Hour.

The system selects group 0, 1, or 2, according to the Time Zone Hour set by the user. The system then selects a CO group in the Advance No. 1 column from the location corresponding to the type of tenant to which the caller belongs and the Route Table No., determined as described in item (3), example 1, and selects an idle CO/PBX Line in that CO group. If all the CO/PBX Lines in that CO group are busy, the system proceeds to search for an idle CO/PBX Line until it reaches the Route Advance Step, the extension class-of-service of the caller.

Suppose, for example, that the caller's extension belongs to tenant B and that the Route Advance Step is 2. Also, suppose that the caller originates a call at 06:30 on Weekday and that the system selects Route Table No. 0 (Time Zone 0) as a result of analyzing the dial data. In this case, the system operates in the order of (a), (b), (c), (d), (e), and (f) in Figure 4.2.2.6.2.6(B).

		Cond	lition	
Time Zone Hour	1 Weekday	2 Saturday	3 Sunday	4 Holiday
O. 0:00 to 0:59	2	2	1	1
1. 1:00 to 1:59	2	2	1	1
2. 2:00 to 2:59	2	2	1	1
3. 3:00 to 3:59	2	2	1	1
4. 4:00 to 4:59	2	2	1	1
5. 5:00 to 5:59	0	0	1	1
6. 6:00 to 6:59	(0)	0	1	1

Figure 4.2.2.6.2.6(A) Time Schedule Planning Sheet

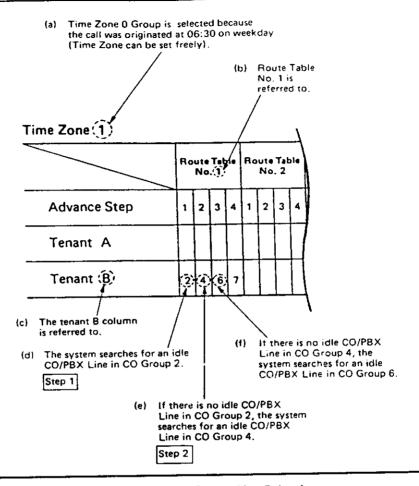


Figure 4.2.2.6.2.6(B) CO Group No. Selection

In the above example, the caller's extension was assigned Route Advance Step 2. Thus, if all the CO/PBX Lines in CO Groups 2, 4, and 6 are busy, the system will not proceed to CO Group 7, which is registered at Advance No. 4. In a case like this, the system sends a busy tone to the caller, signifying that there are no idle CO/PBX Lines. If the Route Advance Step is 0, the system searches for an idle CO/PBX Line only in the CO group of Advance No. 1.

The above process applies to selection of a CO group when the dial data include an area code, office code, and customer code. Another example of CO group selection, when dial data cover only an office and customer code, is explained next.

Example 2: Office — Customer code

- (1) The office code and customer code are registered in the input dial table. (See Figure 4.2.2.6.2.1.)
- (2) The system refers to the Office Code Table, and locates a Route Table No. from the office code registered in the input dial table and the type of tenant of the caller. The Office Code Table must be filled out by the installer during planning. Figure 4.2.2.6.2.7 shows the Office Code Table.

Office Code	ł ·	Table o.
m m m	Tenant A	Tenant B
200		
201		1
202		
996		
997		
998		
999		

Figure 4.2.2.6.2.7 Office Code Table Format

(3) The system then refers to the Time Scedule and Route Table, shown in Figure 4.2.2.6.2.5(A) and (B), on the basis of the Time Scedule and Route Table No. found in item (2). Thereafter, the system selects a CO group by going through the same process as in item (4), example 1.

The process of CO group selection by type of dial data has already been described. After CO group selection, the dial data to be sent to an idle CO/PBX Line in that group may have to be modified by adding a special code or celeting an unnecessary area code. The necessity of modifying dial data is now explained in a little more cetail.

Suppose the dia data generated by the caller consists of an area code, office code, and customer code; that the system has seized a PBX tie line in the optimum CO group as a result of analyzing the dial data; and that the caller originated a local call that would go through the PBX tie line is connected. The user does not know that the CO/PBX Line seized is a PBX tie line, and does not dial specially to seize a PBX tie line.

It is then necessary to output one of the PBX's CO line trunk group numbers before the telephone number. Because the call is a local call as viewed from the PBX, it is not necessary to dial the area code.

Even if the EX1232/2464 system user dials the area code, that area code must be deleted. It is for this reason that the system must modify the dial data.

The process of automatically modifying dial data is explained below as part of the system processing flow. (The optimum CO group has been selected by the process up to item 3, so this explanation starts with item 4.)

4. After CO group selection, the system locates the Deleting Data Table No. (which is clarified below) corresponding to the selected CO group by referring to a table called the Deleting Index Table. Figure 4.2.2.6.2.8 shows the Deleting Index Table format. The installer must fill out this table during planning.

CO Outgoing	Delete Data	a Table No.
Group No.	Tenant A	Tenant B
1		
2		
3		
4		
5		
. 6		
7		

Figure 4,2.2,6,2.8 Deleting Index Table Format

If there is no Deleting Data Table No. in the location corresponding to the selected CO group, there is no data to be deleted from the dial data generated by the caller. If an addition to the dial data is necessary, the system proceeds to that step.

5. The following explanation is based on the assumption that there is a Deleting Data Table No. registered for the selected CO group. In this case again, the process is explained by the type of caller dial data.

Example 1: Area code - Office code - Customer code

(1) The system refers to a table called the Deleting Data Table, and locates the area code in the location corresponding to the Deleting Data Table No. selected in item 4. When the area code in the input dial table (Figure 4.2.2.6.2.1) agrees with the area code from the Deleting Data Table, the area code dialed by the caller is deleted.

Figure 4.2.2.6.2.9 shows the Deleting Data Table format. This table must be filled out by the installer during planning.

Delete Data Table No.	Area Code (P1, P2, P3)		
	Tenant A	Tenant B	
1			
2			
3			
4			

Figure 4.2.2.6.2.9 Deleting Data Table Format

(2) If the area code in the input dial table does not agree with the area code from the Deleting Data Table, the area code dialed by the caller is not deleted, and the system proceeds to making an addition to the dial data if necessary.

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Example 2: Office code – Customer code

- (1) Because no area code is entered in the input dial table (Figure 4.2.2.6.2.3), the system does not delete anything from the dial data, but proceeds to making an addition to the dial data if necessary.
- 6. Upon completion of dial data deletion (where necessary), the system refers to a table called Adding Index Table, and locates the Adding Data Area/Office Table No. clarified below corresponding to the CO group selected in item 3.

Figure 4.2.2.6.2.10 shows the Adding Index Table format. The installer must fill out this table during planning.

CO Outgoing	Delete Data Table No.	
Group No.	Tenant A	Tenant B
1		
2		
3		
4		
5		
6		
7		

Figure 4.2.2.6.2.10 Adding Index Table Format

If there is no Adding Data Area/Office Table No. for the selected CO group, there is nothing to be added to the dial data generated by the caller.

7. It is assumed that an Adding Data Area/Office Table No. corresponding to the CO group selected in item 3 has been registered. Here again, the process is explained by the type of dial data.

Example 1: Area code — Office code — Customer code

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(1) In this case, there is an area code so the system proceeds to referring to a table called the Addition Data Area Table. (In example 2 that follows, the dial data consists of an office code and customer code only, so the system proceeds to referring to an Adding Data Office Table. That is, the table referred to differs depending on whether the dial data includes an area code.)

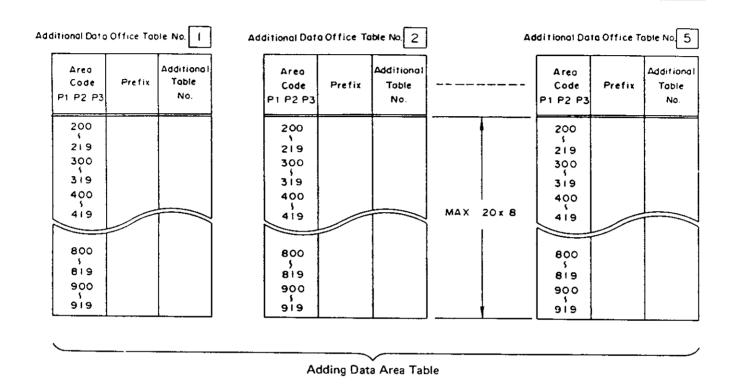


Figure 4.2.2.6.2.11 Adding Data Area Table Format

Note: There are five Adding Data Area Tables, each of which is so formatted that a prefix may be registered for each area code, and an index number may be entered in the adding table column (clarified below). The index number points the adding table where data to be added to the dial data area stored. Area codes are not consecutive, but are broken down into 20 by 8 blocks, as shown in Figure 4.2.2.6.2.11. These tables must be filled out by the installer during planning.

The system selects one of the tables shown in Figure 4.2.2.6.2.11 from the Adding Data Area/Office Table No. selected in item 6.

- (2) The system searches the Adding Data Area Table selected in item (1), example 1, for the area code registered in the input dial table (Figure 4.2.2.6.2.1) and selects the prefix and Adding Table No. registered there. The system stores in memory whether to add a "1" to the dial data to be sent, depending on whether the prefix "1" has been entered. The system then proceeds to referring to the Adding Table indicated by the selected Adding Table No.
- (3) The Adding Table has the actual dial data to be added for each Adding Table No. and a flag showing whether the adding dial data should be placed before or after the normal dial number. Figure 4.2.2.6.2.12 shows the Adding Table format.

Additional Table No.	Additional Flag	Dial	
1 2 3 4 5 6 7 8 9			

Figure 4.2.2.6.2.12 Adding Table Format

Note: There are 10 Adding Tables, each of which can register up to 18 digits of adding dial data. Flag 0 must be entered if the adding dial data must be placed before the normal dial number, and flag 1, if the adding dial data must follow the normal dial number. These tables must be filled out by the installer during planning.

The dial data consisting of an area code, office code, and customer code is modified by the above process. The factors that are determined by the system in the process of modifying the dial data to be sent after CO group selection can be summarized as follows:

- O Whether to delete the area code
- Whether a prefix is necessary
- If additional dial data are necessary, data value and their position.

 ${\sf Example 2: \ Office\ code-Customer\ code}$

(1) In this case, the system proceeds to referring to a table called Adding Data Office Table. Figure 4.2.2.6.2.13 shows the Adding Data Office Table format.

The system selects one of the tables shown in Figure 4.2.2.6.2.13 from the Adding Data Area/Office Table No. selected in item 6.

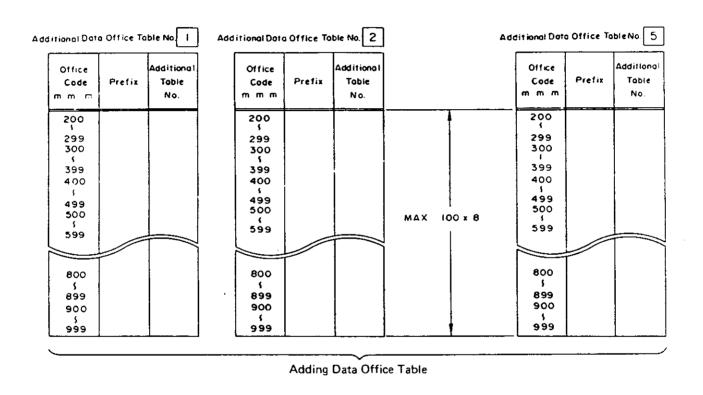


Figure 4.2.2.6.2.13 Adding Data Office Table Format

Note: There are five Adding Data Office Tables, each of which is so formatted that a prefix may be registered for each office code, and an index number may be entered in the adding table column. The index number points the adding table where the dial data to be added are stored. Office codes are consecutive, and are broken down into 100 by 8 blocks, as shown in Figure 4.2.2.6.2.13. These table must be filled out by the installer during planning.

- (2) The system searches the Adding Data Office Table selected in item (1), example 2, for the office code registered in the input dial table (Figure 4.2.2.6.2.1) and selects the prefix and Adding Table No. that are registered there. The system stores in memory whether to add a "1" to the dial data to be sent, depending on whether the prefix "1" has been entered. The system then proceeds to referring to the Adding Table indicated by the selected Adding Table No.
- (3) The Adding Table is the same as the one referred to in item 7, example 1. (See Figure 4.2.2.6.2.12). The system refers to this table, and selects dial data to be added and their position (before or after the normal dial data).

Thus, the dial data, consisting of an office code and customer code, is modified. The factors that are determined by the system in the process of modifying the dial data to be sent after CO group selection can be summarized as follows:

- Whether a prefix is necessary
- O If additional dial data are necessary, data value and their position

Refer to Figures 4.2.2.6.2.14 and 4.2.2.6.2.15 again to review the process of dial data modification by the system after CO group selection. Both figures show the process of dial data modification after CO group selection with reference to the tables concerned. Figure 4.2.2.6.2.14 applies to dial data consisting of an area code, office code, and customer code, and Figure 4.2.2.6.2.15, to dial data consisting of an office code and customer code.

No. in these figures indicates the applicable item number and should be followed in

numeric sequence to understand the modification process.

- 8. When the dial data to be output in originating an outgoing call are determined after selection of the optimum CO group, the system proceeds to processing for toll call restriction. (The flow processing toll call restriction is described in detail in paragraph 4.3.7 Programming Toll Restriction.) The system makes the following analysis in this process:
 - (1) The system obtains the value of "Toll Restriction" that has been set for the calling extension. (KT/VP and SLT)
 - (2) The system analyzes the toll plan according to the value of toll-restriction (assumed to be other than "0" because "0" signifiés unconditional toll access) and the selected CO group.
 - (3) The system analyzes the caller's dial data according to the North American Dial Number Plan, and determines whether to restrict or permit toll calls by referring to the toll plan.
- 9. If toll calls are permitted, the modified dial data are sent to the CO/PBX Line. If toll calls are restricted a warning tone is sent to the caller. This completes all Optimized Call Routing service.

4.2.2.6.3 CO/PBX Lines Selectable by Optimized Call Routing

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Because effective operation of the Optimized Call Routing feature is a great advantage to the user, its planning by the installer is a very important factor. The installer must, first of all, know the types of CO/PBX Lines connected to the system in planning this feature. As described in paragraph 4.2.2.6.2, the CO groups selectable by the Optimized Call Routing feature are any of groups 1 through 7. Refer to Item No. 12, "CO Outgoing Group", in paragraph 4.1 System Planning.

The CO/PBX Lines in groups 1 through 7 that are subject to the Optimized Call Routing feature are as follows:

- O.D.D. lines
- O FX lines
- OUTWATS
- O Tie lines (E&M tie lines and PBX tie lines other than the tie lines connected from the S.C.C. office)

4.2.2.6.4. Optimized Call Routing Data Planning Procedure

Optimized Call Routing data can be planned as described below. This planning is to prepare the various tables mentioned in paragraph 4.2.2.6.2. These tables are available as planning sheets. The installer must prepare plans for Optimized Call Routing after becoming familiar with the types and purposes of CO/PBX Lines to be connected to the system.

This paragraph describes the actual planning procedure, showing a system example.

1. Figure 4.2.2.6.4.1 shows the assumed location of the EX-1232/2464 system and the network of CO/PBX Lines connected to it.

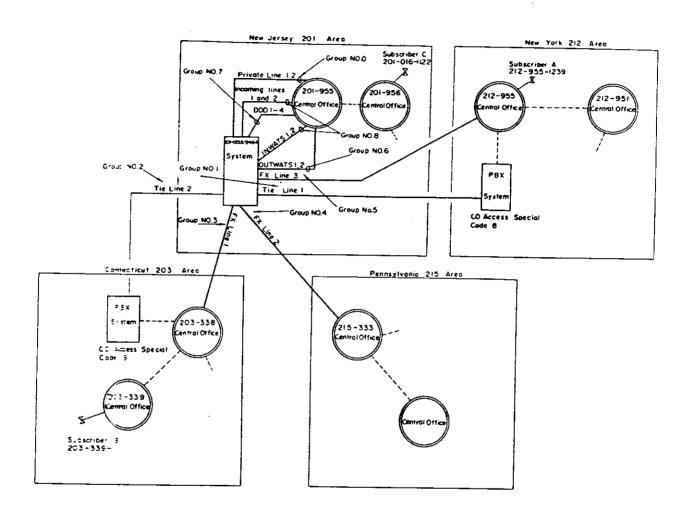


Figure 4.2.2.6.4.1. Assumed CO/PBX Line Network

Planning Procedure

- 1. The CO/PBX Lines that are subject to Optimized Call Routing are those in groups 1 through 7.
- 2. Pay special attention to the PBX tie lines in groups 1 through 7. Enter the area codes for the PBXs to which these tie lines are connected in the E&M Area Code Table. In this example, the area code for tie line 1 is 212, and that for tie line 2 is 203. (See the network diagram in Figure 4.2.2.6.4.1). Enter these area codes and corresponding E&M office group numbers 1 and 2 as shown in Figure 4.2.2.6.4.2.

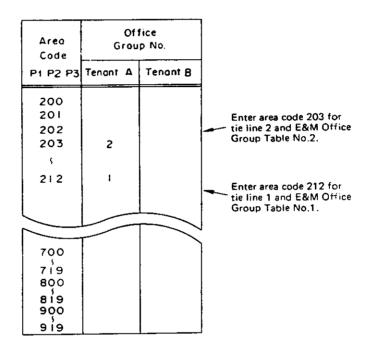


Figure 4.2.2.6.4.2. Example of E&M Area Code Table

Note: If all outgoing calls to the above areas are cheaper than being routed through other lines, it is not necessary to use either the E&M Area Code Table or the E&M Office Group Table. In this case, enter the Route Table Nos. in the General Area Code Table in the part corresponding to the above area codes.

- 3. To determine a Route Table No. for entry in the E&M Office Group Table and Area Code Table that are discussed later, the optimum (least-cost) route to be connected in a specific time zone is now considered. In other words, a Route Table is prepared.
 - (a) Outgoing toll calls in the time zone of 08:00 to 16:59 on weekday to New York, Connecticut, and Pennsylvania (When Time Zone is default. Time Zone can be set freely).

 Refer to the network diagram in Figure 4.2.2.6.4.1.
 - (i) A PBX tie line is connected to New York and Connecticut, so this route is the cheapest. Pennsylvania can be accessed through OUTWATS, FX line 2, and D.D.D. line; the least-cost route in this time zone would be OUTWATS.

 The cheapest connecting routes, that is, CO group numbers to be registered at Advance No.1 to the different destinations in the specified time zone is determined.

 If outgoing dial data in this time zone are 212-955- (New York) And 203-338-(Connecticut), let the system select PBX tie line groups Nos. 1 and 2 respectively as CO groups.

 If outgoing dial data are 215-333- (Pennsylvania), let the system select OUTWATS CO group No. 6 as the CO group.

 Then fill in the Route Table for Time Zone 0 Group. Enter the CO group numbers for these destinations in the order of Route Tables Nos. In the entry example shown in Figure 4.2.2.6.4.3, the CO group numbers for New York, Connecticut, and Pennsylvania are entered in the order of Route Table Nos.
 - (ii) CO groups to be registered at Advance No. 2 are the next least-cost routes, considered when all the least-cost CO/PBX Lines are busy. In accessing New York or Connecticut OUTWATS is the second least-cost route in the specified time zone. Thus, OUTWATS CO group No. 6 should be entered at Advance No. 2. In accessing Pennsylvania, FX line 2 is the second least-cost route, so CO group No. 4 to which FX line 2 belongs should be registered at Advance No. 2.
 - (iii) CO groups to be registered at Advance No. 3 are considered when all the CO groups registered at Advance Nos. 1 and 2 are busy. In accessing New York and Connecticut, FX line 3 and FX line 1 are the third least-cost routes, so enter group No. 5 for FX line 3 and group No.3 for FX line 1 at Advance No. 3. In accessing Pennsylvania, the route through D.D.D. line is the third least-cost, so enter group No. 7 for D.D.D. line at Advance No.3.
 - (iv) CO groups to be registered at Advance No.4 are considered when all the CO groups at Advance Nos. 1, 2, and 3 are busy. In accessing New York and Connecticut, the D.D.D. line is the fourth least-cost route, so enter group No. 7 for the D.D.D. line at Advance No. 4. In this example, there is no CO group to be entered as the fourth least-cost route to Pennsylvania.

The Route Table for Time 0 Group (08:00 to 16:59) has now been prepared by steps (i) through (iv), as shown in Figure 4.2.2.6.4.3. (When Time Zone is default. Time Zaone can be set freely).

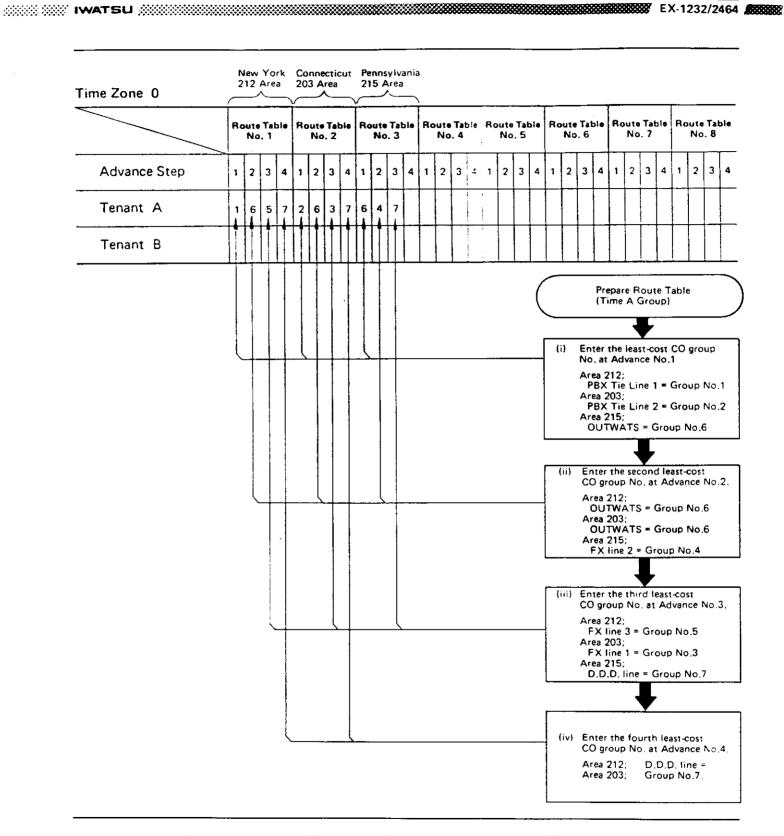


Figure 4.2.2.6.4.3 Example of Preparing Route Table for Time Zone 0

- (b) Outgoing toll calls in the time zone if 17:00 to 22:59 on weekday to New Work, Connecticut, and Pennsylvania (When Time Zone is default. Time Zone can be set freely).
 - (i) As in the case of item (a) above, PBX tie lines are the least-cost access routes to New York and Connecticut. Enter groups Nos. 1 and 2 for PBX tie lines 1 and 2 at Advance No. 1. In accessing Pennsylvania in this time zone, the least-cost route is FX line 2, unlike the case of item (a) above. Enter group No. 4 for FX line 2 at Advance No. 1.
 - (ii) The second least-cost routes to New York and Connecticut are FX line 3 and FX line 1 respectively. Enter groups Nos. 5 and 3 at Advance No. 2. OUTWATS is the second least-cost route to Pennsylvania in this time zone, so enter CO group No.6 for OUTWATS at Advance No. 2
 - (iii) The third least-cost route to New York and Connecticut is OUTWATS line, so enter CO group No. 6 for OUTWATS at Advance No. 3 The D.D.D. line is the third least-cost access route to Pennsylvania, so enter CO group No. 7 for the D.D.D. line at Advance No. 3.
 - (iv) The fourth least-cost route to New York and Connecticut is D.D.D. line, so enter CO group. No. 7 for the D.D.D. line at Advance No. 4. There is no CO group number to be entered an Advance No. 4 as the fourth least-cost route to access Pennsylvania.

Figure 4.2.2.6.4.4 shows a Route Table prepared by going through steps (i) to (iv).

Figure 4.2.2.6.4.4 Example of Preparing Route Table for Time Zone 1

(c) Outgoing toll calls in the time zone of 23:00 to 07:59 on weekday to New York, Connecticut, and Pennsylvania (When Time Zone is default. Time Zone can be set freely).

Figure 4.2.2.6.4.5 shows a Route Table prepared in the same way as described in 3 (a) and 3 (b) Only the table is shown, with no explanation.

Tenant A 1 5 7 6 2 3 7 6 4 7 5	rk Connecticut Pennsylvania 203 Area 215 Area	
Tenant A 1 5 7 6 2 3 7 6 4 7 5 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3	le Route Table No. 2 Route Table Route Table No. 4 Route Table Route Table No. 5 No. 6 No. 7	Able Route Table
Tenant A 1 5 7 6 2 3 7 6 4 7 5	4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3	4 1 2 3 4
	╶╎╸╎╸╎╸┠╸╏╸╏╸┩╶┩╶┩╶┩╶┩╶╏	
Tenant B		

Figure 4.2.2.6.4.5 Example of Preparing Route Table for Time Zone 2

(d) Outgoing local calls to Office 955 in Area 201

D.D.D. lines (CO group No.7) are the cheapest for outgoing Local calls in any time zone. Therefore, the Route Tables are as Figure 4.2.2.6.4.6.

		v1e No		de	Ro	ute No.		*•		ute No.		40		ute Na.		40	Pо	vte No.		•		ute No.		ile.	Ac	No.		ole	Rs	No No		,6
Advance Step	1,	2	3	4	,	2	3	1	1	2	3	4	1	2	3	4	,	2	3	4	1	2	3	4	,	7	3	4	,	2	3	
Tenant A	1	6	5	7	2	6	3	7	6	4	7		7						1			i	1									İ
Tenant B																				,										1		
me Zone 1	Re	No.		ble	Rc	uta No		nie	Ac	ute No		ole	Ra	wie No		ate .	Ro	nu te No	Tat	ı ta	Ra	No.		ble) A	oute No	Tal		R	oute No		
Advance Step	1	2	3	4	,	2	3	4	,	2	3	4	1	2	3	4	,	2	3	4	,	2	3	4	1	2	3	4	١,	2)	I
Tenant A	1	5	6	7	2	3	6	7	4	6	7		7					-								i		Ī	T			İ
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me Zone 2					_		_		ι-						_				· Yay	_	Ι.				R	041			R	out		
THE ZONE Z	R	No.	e Ta		R		, Tal	ble T	R	No	. 3		A.	No.	. 4				5. 5			No	. 6	1	1		o. 7	, T-	1	N	. 8	
Advance Step	\downarrow		s, 1	τ-	 	No	, 2 	Τ-	R.	No	. 3		L	No		,	-	N	s. 5	Г	1	No 2	_	1	1	2	· 	Ţ	1	; 2	ī]
	\downarrow	2	3	4	 	2	3	Τ-	,	No	3	4	L	2	. 4	,	-	N	s. 5	Г	-	No 2	3	1	1	,	· 	Ţ		-	ī]

Figure 4.2.2.6.4.6 Example of Route Table for Outgoing Local Calls to Office 955 in Area 201

4. After preparing Route Tables, enter Route Tables Nos. corresponding to the office codes in the tables of E&M Office Groups No. 1 and No.2. (In this example, the areas where PBX tie lines are available are New York and Connecticut.) The entry procedure is shown in Figure 4.2.2.6.4.7.

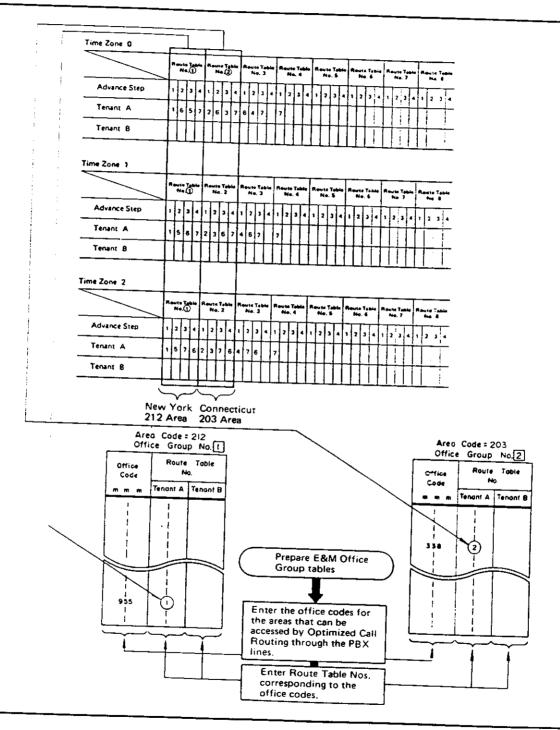


Figure 4.2.2.6.4.7 Example of Preparing E&M Office Group Table

5. Proceed to preparing an Area Code Table. This table is only for the areas where tie lines are not available (Pennsylvania in this example). The entry procedure is shown in Figure 4.2.2.6.4.8.

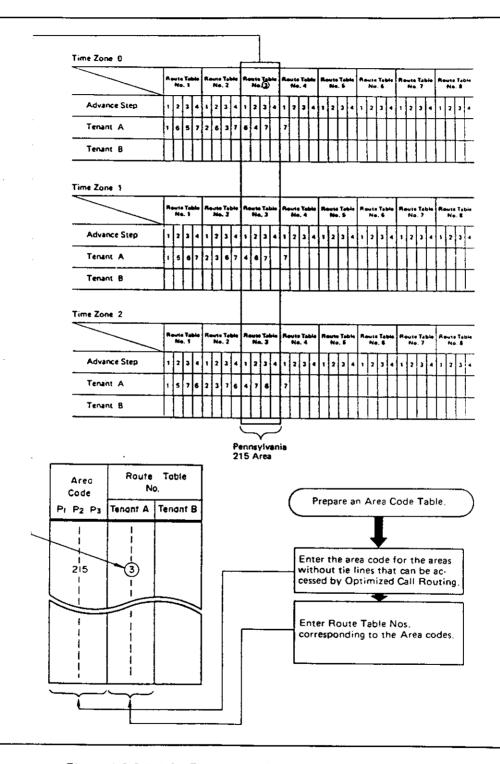


Figure 4.2.2.6.4.8 Example of Preparing Area Code Table

6. Proceed to preparing an Office Code Table. This table is referred to when dial data are for local calls. In this example, the system refers to it when a local call is originated in area 201, New Jersey. An example of preparing an Office Code Table is shown in Figure 4.2.2.6.4.9.

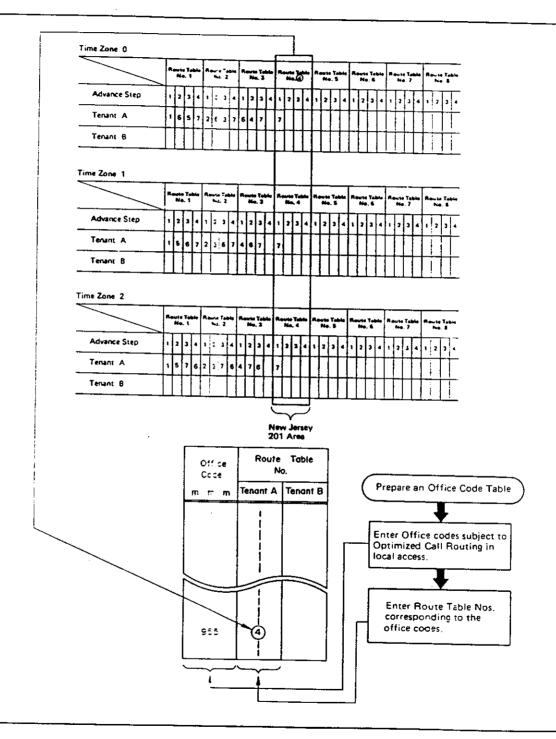


Figure 4.2.2.6.4.9 Example of Preparing Office Code Table

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7. The optimum CO groups for the time zones wherein calls are originated can be determined from previously prepared tables. It is necessary, therefore, to prepare dial data to be sent to these CO groups. The procedure for preparing tables for this purpose is explained below, referring to examples.

Example 1: An outgoing toll call placed by pressing the OPT key, or dialing Optimized Call Routing special code 90 and 212-955-1234 (Subscriber A in the network diagram of Figure 4.2.2.6.4.1). The following description proceeds in the order of Advance Nos. in Table No. 1 (Area 212, New York), Route Table (Time 0 Group).

(a) CO group No. 1 (PBX tie line 1) selected (See Advance No. 1, Figure 4.2.2.6.4.10)

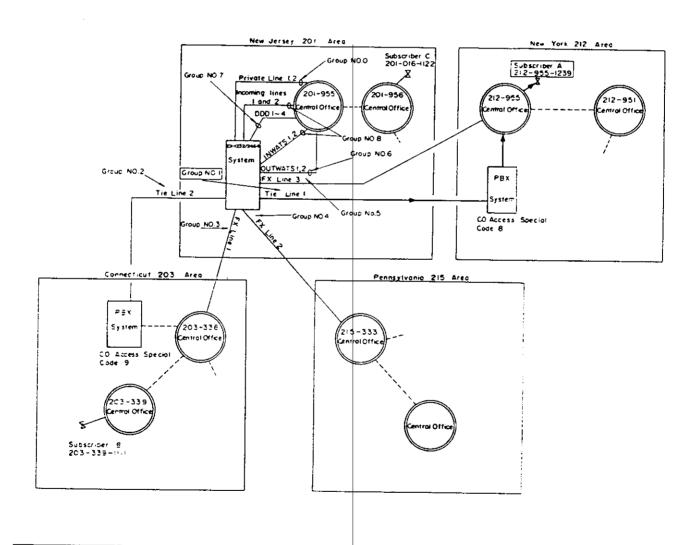


Figure 4.2.2.6.4.10 Example of Outgoing Toll Call via CO Group No. 1 (Caller dialing 212-955-1234)

The dial data to be sent through the PBX tie line must be modified as follows:

- Delete area code 212.
- Add a special code ("8" in this example) before the office code to seize the CO/PBX Line through the PBX.
- Add pause data between special code "8" and the office code to generate a 2-second pause between dialing the special code and receiving the dial tone.

The modified dial data will be:

8 - (Pause data: 2 seconds) - 955 - 1234

An example of entering the above modified dial data in a Planning Sheet is shown in Figure 4.2.2.6.4.11.

(b) CO group No. 6 (OUTWATS) selected (Advance No. 2)

In this case, it is not necessary to modify dial data. Thus, no planning is necessary.

(c) CO group No. 5 (FX line 3) selected (Advance No. 3) (See Figure 4.2.2.6.4.12.)

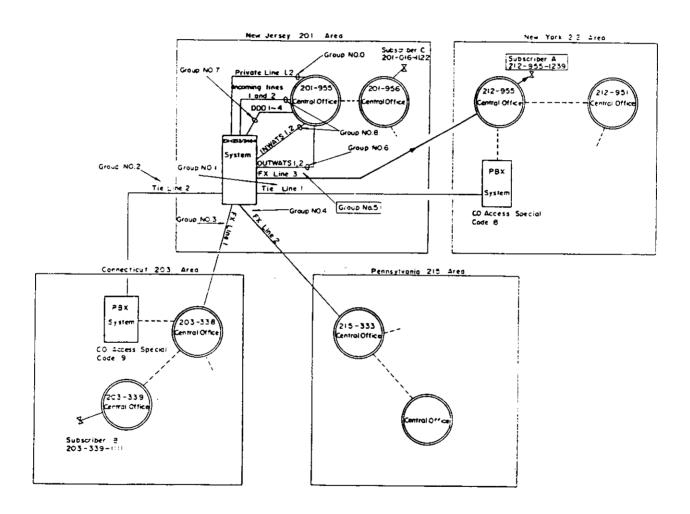


Figure 4.2.2.6.4.12 Example of Outgoing Toll Call Through CO Group No. 5 (Caller dialing 212-955-1234)

The dial data to be sent through the FX line must be modified as follows:

Delete area code 212.

This makes the dial data: 955-1234

This planning example is illustrated in Figure 4.2.2.6.4.13

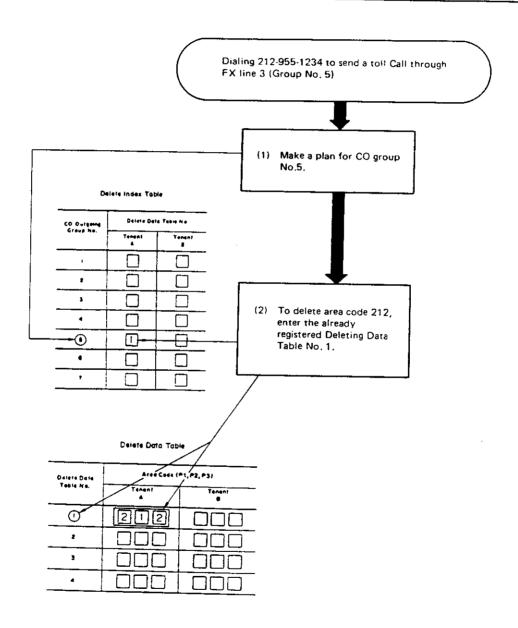


Figure 4.2.2.6.4.13 Planning Example for Dial Data Modification (FX line 3)

(d) CO group No. 7 (D.D.D. line) selected (Advance No. 4)

In this case, it is not necessary to modify dial data. Thus, no planning is necessary.

Example 2: An outgoing toll call by pressing the OPT key, or dialing Optimized Call Routing special code 90 and 203-339-1111. (Subscriber B in the network diagram of Figure 4.2.2.6.4.1). The following description proceeds in the order of Advance Nos. in Table No. 2 (Area 203, Connecticut), Route Table (Time Zone 0 Group).

(a) CO group No. 2 (PBX tie line 2) selected (See Advance No. 1, Figure 4.2.2.6.4.14.)

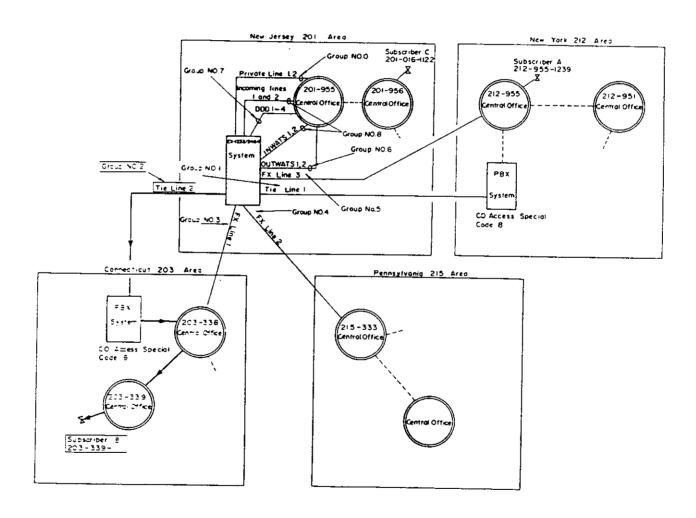


Figure 4.2.2.6.4.14 Example of Outgoing Toll Call Through CO Group No. 2 (Caller dialing 203-339-1111)

The dial data to be sent through the PBX tie line must be modified as follows:

- Delete area code 203.
- 2 Add prefix 1 before the office code.
- 2 Add the special code ("9" in this example) to seize the opposite PBX system before prefix 1.
- © Add pause data of 2 seconds (to wait for the dial tone) between the special code and prefix 1. The modified dial data will be:
 - 9 (Pause data: 2 seconds) 1 339 1111

An example of actually entering the above modified dial data in a Planning Sheet is shown in Figure 4.2.2.6.4.15.

(b) CO Group No. 6 (OUTWATS) selected (Advance No. 2)

In this case, it is not necessary to modify dial data. Thus, no planning is necessary.

(c) CO group No. 3 (FX line 1) selected (Advance No. 3) (See Figure 4.2.2.6.4.16.)

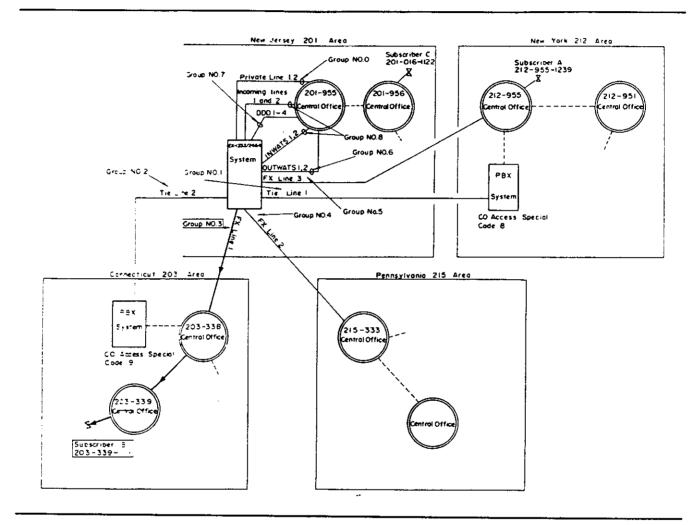


Figure 4.2.2.6.4.16 Example of Outgoing Toll Call Through CO Group No.3 (Caller dialing 203-339-1111)

The dial data to be sent through the FX line must be modified as follows:

- O Delete the area code 203.
- Add prefix I before the office code.

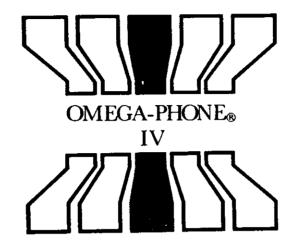
This makes the dial data: 1-339-1111

This planning example is illustrated in Figure 4.2.2.6.4.17.

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EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM

INSTRUCTION MANUAL



4.2 GENERAL DESCRIPTION OF PROGRAMMING

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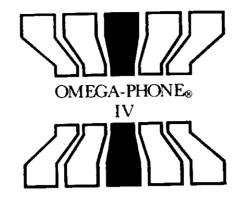
4.2.1	System Programming Terminal
4.2.1.1	Key Assignments of Terminal
4.2.1.2	LCD Indications
4.2.1.3	Key Lamp Indications
4.2.1.4	Prompts
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EX-1232/2464

ELECTRONIC KEY TELEPHONE SYSTEM

INSTRUCTION MANUAL



4.2 GENERAL DESCRIPTION OF PROGRAMMING

4.2.1 System Programming Terminal

When the mode changes from Ordinary Mode to Programming Mode, the functions of the Attendant Console keys all change and the Attendant Console becomes a System Programming Terminal. In Programming Mode, the operator is notified with the following when changing states or items:

- Key lamps
- o LCD indications
- Prompts

These are described in this section.

4.2.1.1 Key Assignments of Terminal

The assignments of System Programming Terminal's Function Keys are as follows:

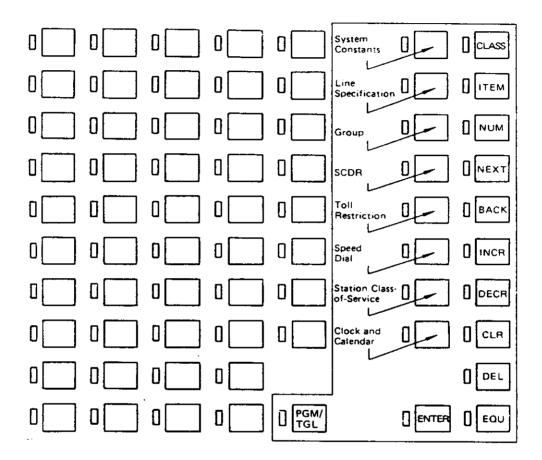


Figure 4.2.1.1.1 Function Keys

Keys that are not Function Keys are Input Data Keys.

The assignments of Input Data Keys differ according to data; Keys are assigned the following functions:

EXT Keys

- The Input Data Keys can be switched over to two modes using a toggle key.
- Extension key are assigned as follows:

Normal-side mode:

EXT 20 to EXT 67

Reverse-side mode:

EXT 68 to EXT 83

• Depress the PGM/TGL key to switch over the Input Data Key mode.

- When the Input Data Keys are in the reverse-side mode, the PGM/TGL lamp blinks in the I-USE pattern. In the case of the normal-side mode, it indicates BUSY indication.
- Refer to Figure 4.2.1.1.2.a and 4.2.1.1.2.b.
- CO and ICM Keys
 - Refer to Figure 4.2.1.1.3.
- Ten-Key Pac
 - In addition to numbers 0 to 9 and characters * and #, the ten-key on the System Programming terminal includes PAUSE and NULL.
 - Refer to Figure 4.2.1.1.4.

Note: In whichever mode (either normal- or reverse-side) of the Data Input Key mode, you can enter CO key, ICM key, or Ten key pad.

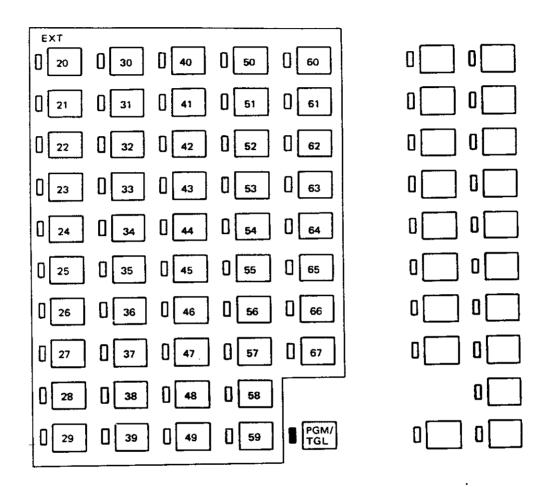


Figure 4.2.1.1.2.a Normal-side Mode of EXT Key

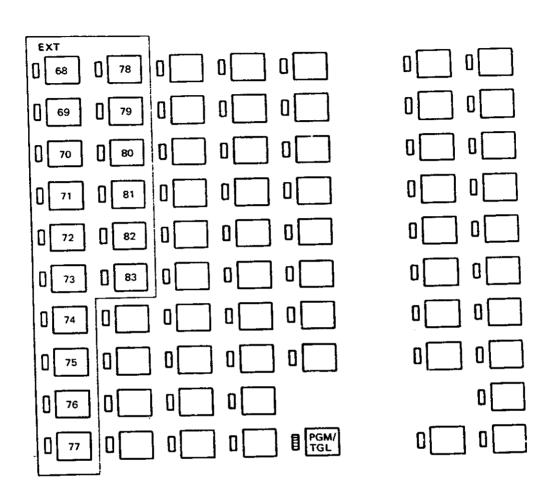


Figure 4.2.1.1.2.b Reverse-side Mode of EXT Key

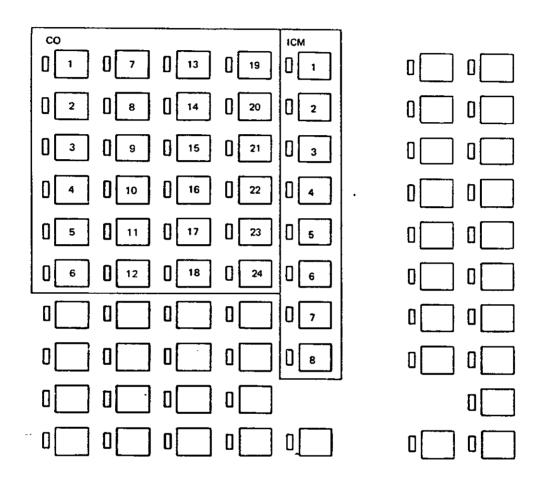


Figure 4.2.1.1.3 CO and ICM Keys

4.2.2.1 Searching for Data

The NEXT and BACK Function Keys are useful when searching for items or verifying the content after selecting the data class.

The NEXT and BACK keys change the item in the class. The NEXT key changes to larger items and the BACK key changes to smaller items.

Example: When the NEXT key is depressed while the Hold Timeout (Item 1) data is displayed on the LCD, as shown in Figure 4.2.2.1.1 in System Constants Class, the display changes to the Sender

Timeout setting, shown in Figure 4.2.2.1.2, which is the next item.



Figure 4.2.2.1.1

```
Sender Timeout (seconds) 20
```

Figure 4.2.2.1.2

The display returns to Figure 4.2.2.1.1 when the BACK is depressed while Figure 4.2.2.1.2 is displayed.

The INCR and DECR keys change the Number within items in the same manner as the NEXT and BACK keys change items within a Class. These keys allow the display to be changed within the range of Numbers within an item and enable to verify the data.

Example: When the INCR key is depressed while data for EXT 25 is displayed, as shown in Figure 4.2.2.1.3, when setting the Toll Dial Class of Restriction (Item 22) of Station Class-of-Service Class, the data changes to the next Number, EXT 26, as shown in Figure 4.2.2.1.4.

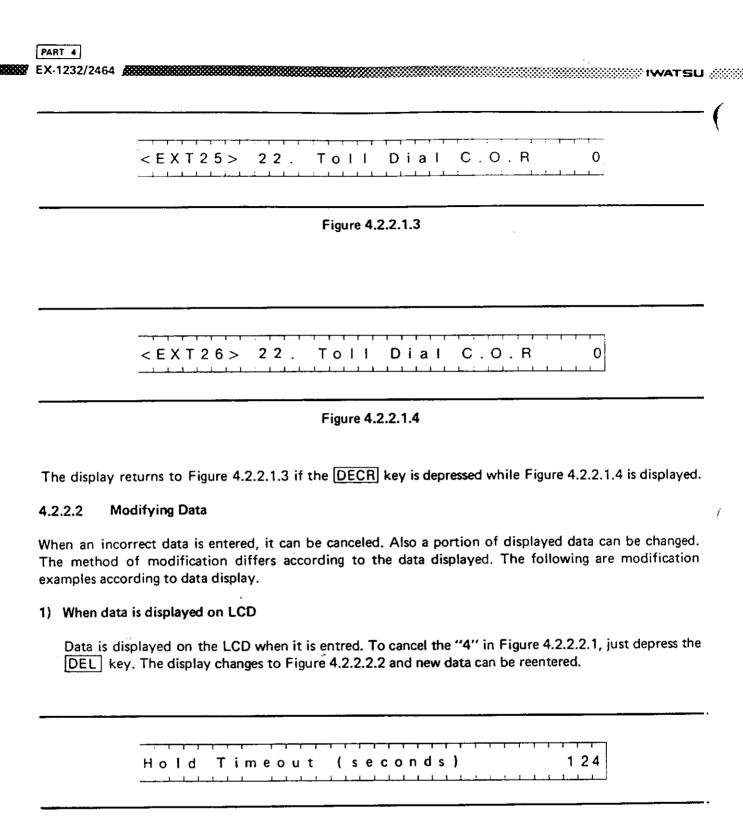


Figure 4.2.2.2.1

Hold Timeout (seconds) 12

Figure 4.2.2.2.2

The DEL key is depressed as many times as there are displayed digits to cancel the numbers. This function can be used to cancel part of a number and reenter new digits.

To change the SCC Office Code data "0P52019558500" shown in Figure 4.2.2.2.3 to "0P52019558589", depress the DEL key twice to change the display to Figure 4.2.2.2.4 and reenter the last two digits.

1. SPD<TNT - > 0P52019558500

Figure 4.2.2.3

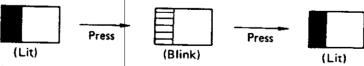
1. SPD<TNT - > 0P520195585

Figure 4.2.2.2.4

2) When displaying data on Input Data Key lamps

When an incorrect Input Data Key is depressed, just depress the key again to return to the previous data indication.

A key lamp that is lit changes to blinking when depressed once and back to steadily lit when depressed again. See Figure 4.2.2.3.4.



See and Not See of data are indicated by blinking and lighting of the key lamps. Data is changed by depressing a key and changing the status of the key lamp.

For some items, if an error is made, the key need not be depressed once again. The previous key lamp lights (not set) automatically when a new key is depressed.

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Deletion of Data 4.2.2.3

Data on the display can be cleared by depressing the Clear key. When the data is indicated on the display.

1) Data indication on the Display

When the DLR key is depressed while the Speed Dial Class is Station Speed Dial.

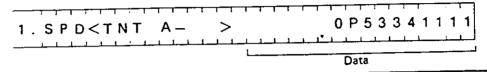


Figure 4.2.2.3.1

is displayed, then the following initial value (no function) is displayed.

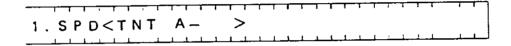


Figure 4.2.2.3.2

For a setting that displays data on the LCD, clear the data with the DEL key and register. This is the same as depressing the CLR key.

2) Data indication on the Input Data Key lamps.

All the Input Data Key lamps light (not set) even when data is blinking (set):

Some items differ from the default.

For example, when the CLR key is depressed while the data indication is for SCDR Data Class Print Out CO default data, as in Figure 4.2.2.3.3, the data indication is as shown in Figure 4.2.2.3.4.

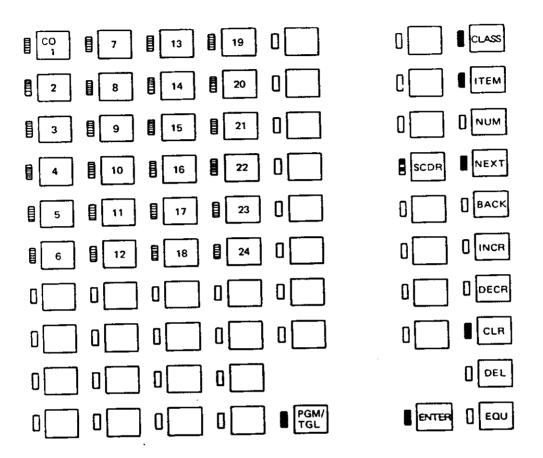


Figure 4.2.2.3.3

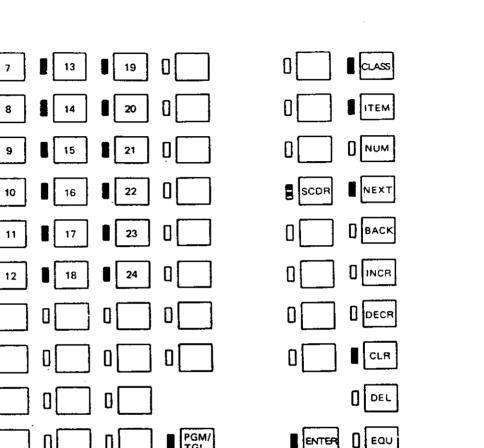


Figure 4.2.2.3.4

4,2,2,4 Modifying Data in Sequence

For items with Numbers, the same data can be input continuously. Also, Numbers can be kept constant while item is changed.

1) Registering the same data continuously

For example, to enter the Line Class (Item 1) of Line Specification Class, proceed as follows:

Depress the INCR key when the data for CO 2 is as shown in Figure 4.2.2.4.1 to display CO 3, shown in Figure 4.2.2.4.2.

Then depress the EQU key to display the CO 2 data (Figure 4.2.2.4.3).

Repeat this operation to continuously register the same data.

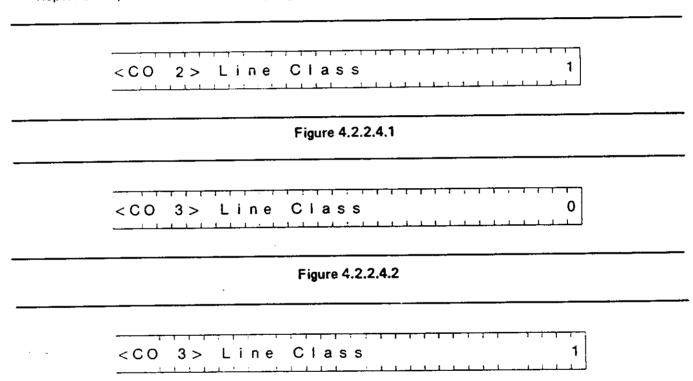


Figure 4.2.2.4.3

2) Registering the same Number while changing the item

Some Numbers are common among items as with Line Specification. With Class, the items can be changed without changing the Number. For example, if the NEXT key is depressed when setting Line Class (Figure 4.2.2.4.4), the item changes to Tenant Group (Figure 4.2.2.4.5) but the Number, CO 1, does not change.

The same Number for each item can be easily entered in this manner.

This method can be applied to Line Specification and Station Class of service.

Figure 4.2.2.4.7

4.2.3 System Data Printout

4.2.3.1 Printout Condition

The content of each system data item can be displayed on the Programming Terminal in Programming Mode. To view all system data at once, however, print the system data from the SCDR.

Printing the system data from the SCDR enables verification of the contents and retention of a data history for future changes.

Note that all system functions halt when system data is printed.

Refer to Section 2.3.S.12, System Data Printout, for operation.

4.2.3.2 Printout Format

A part of the printed system data format is shown in the following page.

```
- EX - 1232/2464 System Software V1.0 --- system Data Listing -
                                                 86/ 5/21/3
                                                                    12:30
· System Constants ·
   1. Hold Timeout (seconds)
                                                                         30
       Sender Timeaut (seconds)
                                                                         20
      Page Timeout (seconds)
                                                                          10
       Hold Recall Timeout (seconds)
                                                                         20
       Camp On Timeout (seconds)
                                                                         30
       Caliback Timeeout (seconds)
                                                                          20
       Automatic Answer Time (seconds)
                                                                          12
       Attendant Intercept Time (seconds)
                                                                          20
       Master Group Hunt Timeout (seconds)
                                                                         20
      PBX Outgoing Specification Code
                   Code No
                                                                         23
                                                                         234
                                                                         123
                                                                        235
                                                                        1111
      Overflow Transfer Minimum
                   Attendant
                                                                           3
       Overflow Transfer Extension
                  Attendant
                                                                          23
       ICM Call Mode
                   Tenant
       External Paging Speakers
  15.
      System Prefix
       Automatic Pause Length
                                                                           ŝ
  17. Timed Trunk Queuing Interval
                                                                          10
  18. Attendant Key Assignment
          Attendant 1
             Key
                      DSS 1 DSS 2 DSS 3 DSS 4 DSS 5 DSS 6 DSS 7 DSS 8 DSS 9 DSS10
                      DSS11 DSS12 DSS13 DSS14 DSS15 DSS16 DSS17 DSS18 DSS19 DSS20
                      DSS21 DSS22 DSS23 DSS24 DSS25 DSS26 DSS27 DSS28 DSS29 DSS30
                      DSS31 DSS32 DSS33 DSS34 DSS35 DSS36 DSS37 DSS38 DSS39 DSS40
                      DSS41 DSS42 DSS43 DSS44 DSS45 DSS46 DSS47 DSS48 DSS49 DSS50
                      DSS51 DSS52 DSS53 DSS54 DSS55 DSS56 DSS57 DSS58 DSS59 DSS60
                      DSS61 DSS62 DSS63 DSS64 SPD 0 SPD 1 SPD 2 SPD 3 SPD 4 SPD 5
                      SPD 6 SPD 7 SPD 8 SPD 9 SPD10 SPD11 SPD12 SPD13 SPD14 SPD15
                      SPD16 SPD17 SPD18 SPD19 SPD20 SPD21 SFD22 SFD23 SPD24 SPD25
                      SPD26 SPD27 SPD28 SPD29 SPD30 SPD31
  19. Attendant EXT Assignment
                   Attendant
                                                                          20
20
                        2
```

Figure 4.2.3.2.1 System Data Format (1/4)

4.2.2.5 Key Assignment

Keys on a key telephone or Versa Phone and DSS keys on an Attendant can be freely assigned by setting from the programming terminal.

4.2.2.5.1 Key Telephone/Versa Phone Key Assignment

- 1) Table 4.2.2.5.1.A shows the keys that can be assigned to a key telephone or Versa Phone and their corresponding key code numbers used for setting.
- 2) The ICM and FEAT keys are fixed keys.
- 3) When assigning the PAGE (Press Page) key, the key position is fixed to Key No. 6. It cannot be assigned to a key in another position.
- 4) Setting is made by Class 7 Station Class of Service Item 27 key telephone Key Assignment.
- 5) Figure 4.2.2.5.1.A and 4.2.2.5.1.B show the default key assignment for key telephones and Versa Phones respectively.

Table 4.2.2.5.1.A

Key Message	Key	Key Code No.
ADD	Add On Conference Key	00
FLSH	Flash Key	01
FWD	Call Forward Key	02
HOLD	Hold/DND Key	03
MSG	Message Key	04
PARK	Call Park Key	05
SPKR	Speaker Key	06
TRN	Transfer Key	07
P. PAG	Press Page Key	08
CO nn	Direct COL Key	1
FLT	Floating COL Group Access Key	20
FLT 1	Floating COL Group 1 Direct Access Key	21
FLT 2	Floating COL Group 2 Direct Access Key	22
FLT 3	Floating COL Group 3 Direct Access Key	23
FLT 4	Floating COL Group 4 Direct Access Key	24
FLT 5	Floating COL Group 5 Direct Access Key	25
FLT 6	Floating COL Group 6 Direct Access Key	26
FLT 7	Floating COL Group 7 Direct Access Key	27
OPT	Optimized Routing Access Key	28
DSS mm	Direct Station Select Key	3
D. PAG n	Direct Page Key	4
HNT n	Direct Master Hunt Group Key	5
SPD nn	Direct Speed Dial Key	6
DSP	Display Key	70
CALC	Calculator Key	71

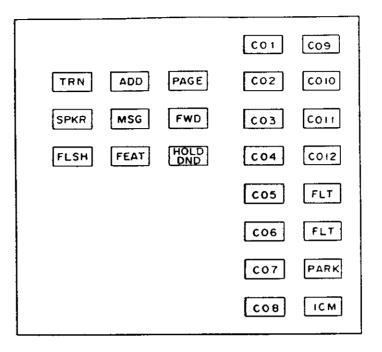


Figure 4.2.2.5.1.A KT Default Key Assignment

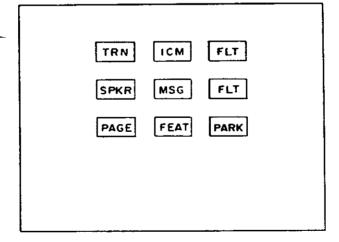


Figure 4.2.2.5.1.B VP Default Key Assignment

- 6) Key No. Positions on a key telephone and Versa Phones are shown in the following:
 - KT key No. position



- 19
- 20
- 13

Ten Key

- 22
- 23
- Ісм

Figure 4.2.2.5.1.C

• Versa phone key No. position



Ten Key

Figure 4.2.2.5.1.D

4.2.2.5.2 Attendant Key Assignment

- 1) Those keys that can be assigned to the DSS keys on an Attendant and their corresponding key code numbers used for setting are shown in the following:
 - DSS mm Direct Station Select Key
 HNT n Direct Master Hunt Group Key
 SPD nn Direct Speed Dial Key
 6

| IWATSU

- 2) Setting is made by Class 1 System Constants Item 18 Attendant Key Assignment.
- 3) Figure 4.2.2.5.2.A shows the Key Position numbers on the Attendant.

Normal-side mode: 1 to 48 Reverse-side mode: 49 to 96

4) Default DSS Key assignments on an Attendant are as shown below.

Normal-side mode: Keys 1 to 48, DSS #20 to #67
Reverse-side mode: Keys 1 to 16, DSS #68 to #83
Keys 17 to 48, SPD #00 to #31

1 2 3 4 5 6 7 8	11 12 13 14 15 16 17 18	21 22 23 24 25 26 27 28 29	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48	
50 51 52 53 54 55 56 57	60 61 62 63 64 65 66 67	70 71 72 73 74 75 76 77	80 81 82 83 84 85 86 87	99 90 91 92 93 94 95 96	

Figure 4.2.2.5.2.A

4.2.2.5.3 Key Assignment Method

Assignment of key telephone, Versa Phone, and DSS keys on an Attendant are made in the following manner.

1) Specify the Extension or Attendant number.

2) Specify the key position.

Key telephone, Versa Phone:

Refer to section 4.2.2.5.1 6)

Attendant:

Refer to section 4.2.2.4.2 4)

3) Depress Clear key to clear the present key assignments.

4) Input the key code number of the key to be assigned for the ten keys of the Input Data Keys.

Key telephone, Versa Phone:

Refer to section 4.2.2.5.1 1)

Attendant:

Refer to section 4.2.2.5.2 2)

5) Input various numbers for the assigned keys, if necessary.

Direct COL Key

CO 1 to CO 24

Direct Station Select

EXT20 to EXT83

Direct Page Key

0 to 9

Direct Master Hunt Group Key

1 to 4

Direct Speed Dial Key

00 to 99

Direct Paging numbers are as shown below:

- 0 All
- 1 Zone 1
- 2 Zone 2
- 3 Zone 3
- 4 All Zone
- 5 All Group
- 6 Group 1
- 7 Group 2
- 8 Group 3
- 9 Group 4

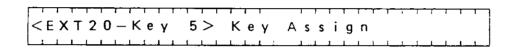
1

4.2.2.5.3.1 Explained in the following are some examples of actual key assignment procedures.

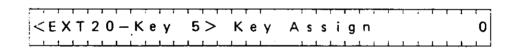
a. Assignment of the ADD key (MSG → ADD)



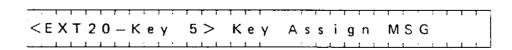
Depress the CLR key.
 Key Message on the display is cleared.



2. Depress the ten key 0 of the Input Data Keys. 0 appears on the display.



3. Depress the ten key 0 of the Input Data Keys. Key Message ADD appears on the display.

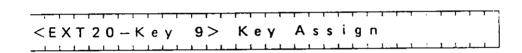


4. Depress the **ENTER** key. Registration has been completed.

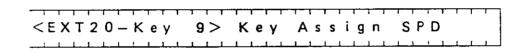
b. Key assignment of SPD (Speed Dial) #37. (CO #1 → SPD #37)



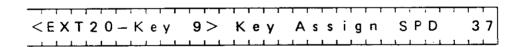
1. Depress the CLR key.
Key Message on the display is cleared.



2. Depress the ten key 6 of the Input Data Keys. Key Message SPD appears on the display.



3. Depress the ten keys 3 and 7 of the Input Data Keys to register Speed Dial #37.



4. Depress the **ENTER** key. Registration has been completed.

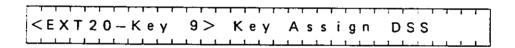
Key assignment of DSS (Direct Station Select) #25. (CO #1 → DSS #25)

< E X T 2 0 - K e y 9 > Key Assign COL

Depress the CLR key. Key Message on the display is cleared.

> < E X T 2 0 - K e y 9 > Key Assign

2. Depress the ten key 3 of the Input Data Keys. Key Message DSS appears on the display.



- Depress the extension key 25 of the Input Data Keys to register DSS #25. 3. Extension #25 lamp blinks.
- 4. Depress the **ENTER** key. Registration has been completed.

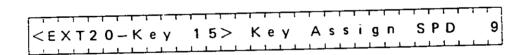
d. Changing the key assignment from DSS #25 to DSS #35.



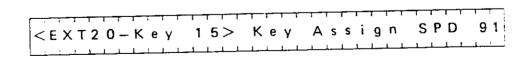
- 1. Depress the extension key 35 of the Input Data Keys. Extension #25 lamp changes from flashing to steady lighting and extension #35 lamp begins flashing.
- Depress the ENTER key. Registration has been completed.
- e. Changing the key assignment from SPD #07 to SPD #91.



Depress the ten 9 of the Input Data Keys.
 The display changes into the following:



2. Depress the ten key 1 of the Input Data Keys.



Depress the ENTER key.
 Registration has been completed.

4.2.2.5.4 Restriction on key assignments

No duplicated assignment of the following keys are permitted. When changing these key assignments, clear the preset key assignment first, and then make a new assignment once.

ADD	Add on Conference Key
FLSH	Flash Key
FWD	Call Forward Key
HOLD	Hold/DND Key
MSG	Message Key
PARK	Call Park Key
SPKR	Speaker Key
TRN	Transfer Key
P. PAG	Place Page Key
COL nn	Direct COL keys on stations which terminate a COL No. nn
DSS mm	Direct station select keys on stations which terminate a DSS No. mm.

4.2.2.6 Optimized Call Routing

4.2.2.6.1 General Description

This feature analyzes dial data related to CO access, and seizes the lowest-cost CO/PBX Line in accordance with traffic and time at the moment of CO access. In the case of a tie line, for example, a special code may be added or the unnecessary area code deleted to adapt the CO access dial to the optimum CO/PBX Line. Because the optimum CO/PBX Line depends on traffic at the time of CO access, there may be up to four groups of CO/PBX Lines that can be seized to raise the probability of seizure. The system can automatically select the optimum CO/PBX Line in these groups. All extensions may use this selective feature, with different groups within which the optimum line is selected being assigned to extensions according to the positions of extension users. This group assignment can be made as described in No. (24) "Route Advance Step" in the Station Class of Service for KT/VP, and single line telephones of paragraph 3.3.2, System Planning.

This feature also enables the user to effect a rational toll restriction, suited to the desired toll plan, by means of floating toll restriction.

4.2.2.6.2 Basic Operation of Optimized Call Routing

The basic operation of optimized call routing is described below.

Note: Understanding the basic operation of optimized call routing helps the installer in preparing plans because the functions and uses of many assignment tables used in planning are described in detail in this paragraph. Never attempt planning without understanding this paragraph.

- The subscriber presses the OPT key on the extension, or dials the optimized routing special number,
 (The extension used by this subscriber must have "allow." assigned for Optimized Call Routing.)
- 2. The subscriber then dials the telephone number of the opposite party. (Depending on the area, the prefix code 1 may have to be added before the area code or office code.)

3. From the area code and office code (or from only the office code if no area code is used), the CO (group best suited to that time is selected from the registration location called the Route Table No. The process of selecting this CO group is described in detail by dial data type.

(1) The dial data generated by the subscriber is analyzed according to the North American Dial Number Plan. The area code is first entered in the area called the input dial table (mentioned for purposes of explanation here, though it does not come up at the time of preparing the planning sheet), followed by the office code and customer code (subscriber number). This process is illustrated in Figure 4.2.2.6.2.1.

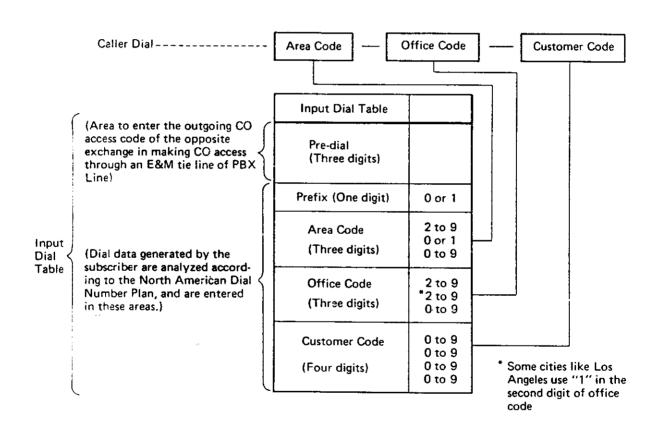
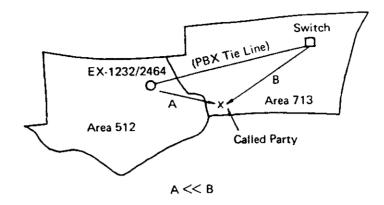


Figure 4.2.2.6.2.1 Entering Dial Data in Input Dial Table

If an E&M line or PBX Line is available between the areas to which these area codes are allocated and the EX-1232/2464 system, Co access through the switch to which the tie line or PBX line is connected is generally considered cheaper. In a case such as shown below, however, calls not routed through the tie line cost less because the actual CO line length is shorter. It is necessary, therefore, to identify the geographic positions of office codes belonging to an area code.



(2) The system refers to the table in which are registered the area codes for areas covered by PBX tie lines or E&M tie lines. This table is called the E&M Area Code Table. If the dialed area code is not in this table, system refers to the table in which are registered the area codes for lines other than PBX tie lines or E&M tie lines. The two tables are shown in Figures 4.2.2.6.2.2(A) and (B).

Area Code	Off Group	
P1 P2 P3	Tenant A	Tenant B
200 219 300 319 400 419 500 519		
700 719 800 819 900 919		

Area Code	Roi Table	
P1 P2 P3	Tenant A	Tenant B
200 219 300 319 400 419 500 519		
700 719 800 819 900 919		

Figure 4.2.2.6.2.2(A) E&M Area Code Table Format

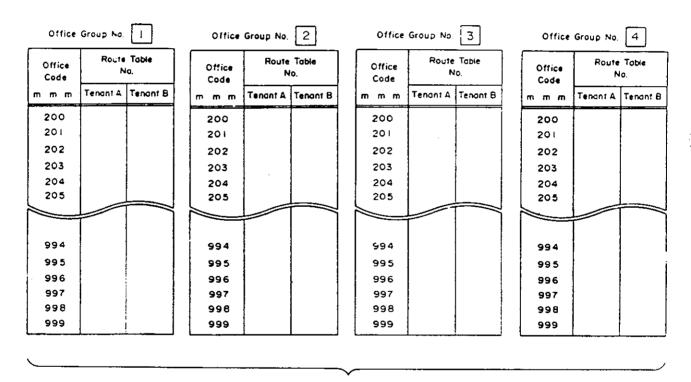
Figure 4.2.2.6.2.2(B) Area Code Table Format

Note: In the E&M Area Code Table, an E&M Office Group No. (not described in detail here because its (meaning is classified in subsequent descriptions) must be registered for each of the area codes 200 to 919.

In the Area Code Table, a Route Table No. (not described in detail here because its meaning is clarified in subsequent descriptions) must be entered for each tenant and each of the area codes 200 to 919 (not necessarily consecutively). See Figure 4.2.2.6.2.2(B).

Both tables must be filled out during planning by the installer.

(3) If the dialed area code is in the E&M Area Code Table (Figure 4.2.2.6.2.2 A), one of the tables called the E&M Office Group Tables, where PBX or E&M tie line office codes are entered in four groups, is selected according to the E&M Office Group No. registered for that area code and tenant. E&M Office Group Tables are shown in Figure 4.2.2.6.2.3.



E&M Office Group Table

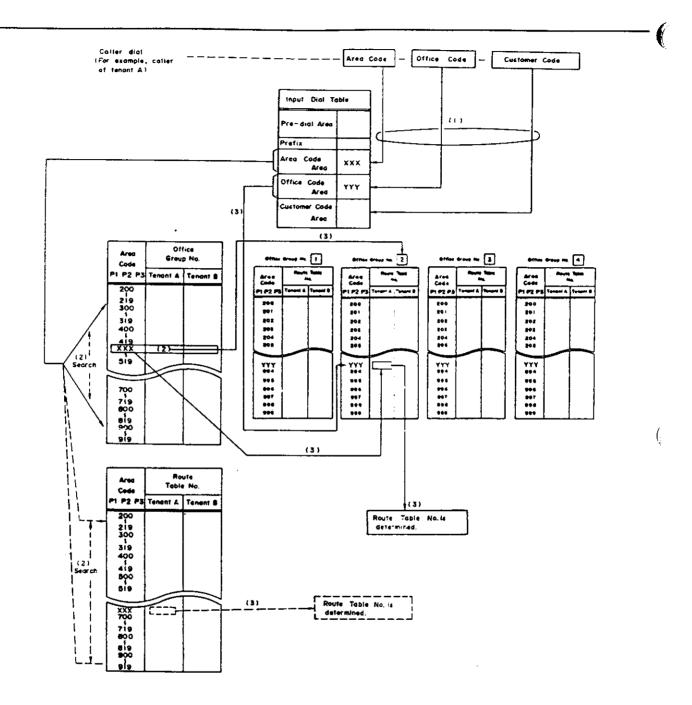
Figure 4.2.2.6.2.3 E&M Office Group Table Format

Note: In the E&M Office Group Tables, a Route Table No. must be registered for each of tenants A and B according to the office code (any codes from 200 through 999 can be registered consecutively) in the dial data. The reason that there are four E&M office groups is to make each E&M office group correspond to an E&M area code.

This table must also be filled out by the installer during planning.

The system refers to the office code registered in the selected E&M office group, and selects a Route Table No. from the location where the office code agrees with the office code registered in the input dial table (Figure 4.2.2.6.2.1) according to the type of tenant to which the caller belongs.

If the area code is not in the E&M Area Code Table, the system refers to the Area Code Table as described in item (2), example 1, and obtains the Route Table No. registered for that area code and type of tenant. The Route Table No. is obtained by going through items (1), (2), and (3). The difference in system processing between a case in which PBX or E&M tie lines are available and other cases is described in item (3) above. That is, if PBX or E&M tie lines are available, the Route Table No. is determined by the area code and office code, whereas if PBX or E&M tie lines are not available, the Route Table No. is determined by the area code only. The process up to this point is shown in Figure 4.2.2.6.2.4.



Note: (1) in this figure means item (1), example 1.

- (2) in this figure means item (2), example 1.
- (3) in this figure means item (3), example 1.

Solid lines apply if PBX or E&M tie lines are available (area codes are registered in the E&M Area Code Table). Dash lines apply if no tie lines are available (area codes are not registered in the E&M Area Code Table).

Figure 4.2.2.6.2.4 Process Through Selecting a Route Table No. (Where Area Code is Used)

As the process up to this point shows, the system first searches for a PBX or E&M tie line in the E&M Area Code Table. If there is no tie line in the E&M Area Code Table, the system refers to the Area Code Table to select the least-cost route. The Time Zones of the Route Tables can be set according to Time Schedule.

The Schedule and Route Tables are described in detail below.

A Route Table No. is an index showing the location of the Route Table that must be referred to. There are three Route Tables, 0 through 2, which differ by access time zone and each is divided into eight parts. In each part, CO group numbers are registered in order to preference. The installler must fill out these tables during planning. The Time Schedule and the Route Tables are shown in Figures 4.2.2.6.2.5(A) and 4.2.2.6.2.5(B).

		Cond	lition	
Time Zone Hour	1 Weekday	2 Saturday	3 Sunday	4 Holiday
0. 0:00 to 0:59				
1, 1:00 to 1:59				
2. 2:00 to 2:59				
3. 3:00 to 3:59				:
4. 4:00 to 4:59				
5, 5:00 to 5:59				
6. 6:00 to 6:59			1-1-	
7. 7:00 to 7:59				
8. 8:00 to 8:59				
9. 9:00 to 9:59				
10. 10:00 to 10:59				<u> </u>
11. 11:00 to 11:59				
12. 12:00 to 12:59				
13. 13:00 to 13:59				
14. 14:00 to 14:59				
15. 15:00 to 15:59				
16. 16:00 to 16:59	1	1		
17. 17:00 to 17:59				
18. 18:00 to 18:59				
19. 19:00 to 19:59				
20. 20.00 to 20:59		1		
21. 21:00 to 21:59				
22. 22:00 to 22:59		1		
23. 23:00 to 23:59		1		

Note: Set Time Zone 0 to 2 according to conditions 1 to 4 and Time Zone Hour 0:00 to 23:59

Figure 4.2.2.6.2.5(A)1 Time Schedule

	-		Cond	lition	
Tim	ne Zone Hour	1 Weekday	2 Saturday	3 Sunday	4 Holiday
0.	0:00 to 0:59	2	2	2	2
1.	1:00 to 1:59	2	2	2	2
2.	2:00 to 2:59	2	2	2	2
3.	3:00 to 3:59	2	2	2	2
4.	4:00 to 4:59	2	2	2	2
5.	5:00 to 5:59	2	2	2	2
6.	6:00 to 6:59	2	2	2	2
7.	7:00 to 7:59	2	2	2	2
8.	8:00 to 8:59	0	0	0	0
9.	9:00 to 9:59	0	0	0	0
10.	10:00 to 10:59	0	0	0	0
11.	11:00 to 11:59	0	0	О	0
12.	12:00 to 12:59	0	0	0	0
13.	13:00 to 13:59	0	0	0	0
14.	14:00 to 14:59	0	0	0	0
15.	15:00 to 15:59	0	0	0	: 0
16.	16:00 to 16:59	0	0	0	0
17.	17:00 to 17:59	1	1	1	1
18.	18:00 to 18:59	1	1	1	1
19.	19:00 to 19:59	1	1	1	1
20.	20.00 to 20:59	1	1	1	1
21.	21:00 to 21:59	1	1	1	1
22.	22:00 to 22:59	1	1	1	1
23.	23:00 to 23:59	2	2	2	2

Figure 4.2.2.6.2.5(A)2 Time Schedule (Default Value)

Time Zone 0

	R		Ta	ble	Ro		Tal		Ro	oute No				ute No		əle			Tal	ble		oute No				oute No		ble	Ro	ute No		ale
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A																																
Tenant B																																

Time Zone 1

	R	oute No		ble			Tal	ble	Ro	oute No		ble		ute No		ole		oute No		ole		ute No		ble	Ro	No		ble	Ro	No	Table . 8
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3 4
Tenant A																											-				
Tenant B																															

Time Zone 2

	Ro	oute No		ble	Ro		Ta . 2		R		Tal			No		ole		ute No		ble		oute No		ole		ute No		ole	Ro	ute No.	Table 8
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3 4
Tenant A																															
Tenant B																															:

- Note 1. CO Outgoing Group Nos. shall be set in accordance with the setting of the Tenant A/B, Time Zone, Route Table Nos. and Advance Steps.
 - 2. CO Outgoing Group Nos. are 1 to 7.
 - 3. The default value is 0, and it has no function.

Figure 4.2.2.6.2.5(B) Route Table

(4) Assign a Time Zone (0 to 2) first according to Time Zone Hour.

The system selects group 0, 1, or 2, according to the Time Zone Hour set by the user. The system then selects a CO group in the Advance No. 1 column from the location corresponding to the type of tenant to which the caller belongs and the Route Table No., determined as described in item (3), example 1, and selects an idle CO/PBX Line in that CO group. If all the CO/PBX Lines in that CO group are busy, the system proceeds to search for an idle CO/PBX Line until it reaches the Route Advance Step, the extension class-of-service of the caller.

Suppose, for example, that the caller's extension belongs to tenant B and that the Route Advance Step is 2. Also, suppose that the caller originates a call at 06:30 on Weekday and that the system selects Route Table No. 0 (Time Zone 0) as a result of analyzing the dial data. In this case, the system operates in the order of (a), (b), (c), (d), (e), and (f) in Figure 4.2.2.6.2.6(B).

		Cond	lition	
Time Zone Hour	1 Weekday	2 Saturday	3 Sunday	4 Holiday
0. 0:00 to 0:59	2	2	1	1
1. 1:00 to 1:59	2	2	1	1
2. 2:00 to 2:59	2	2	1	1
3. 3:00 to 3:59	2	2	1	1
4, 4:00 to 4:59	2	2	1	1
5. 5:00 to 5:59	0	0	1	1
6. 6:00 to 6:59	(0)	0	1	1

Figure 4.2.2.6.2.6(A) Time Schedule Planning Sheet

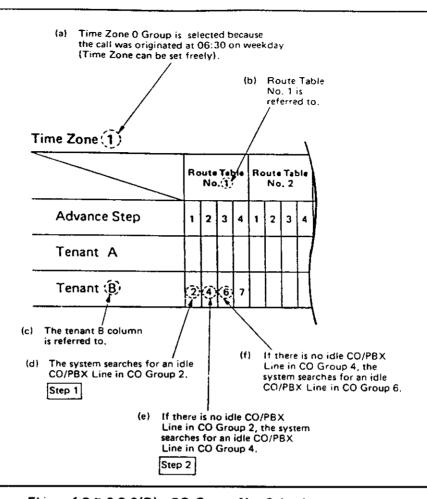


Figure 4.2.2.6.2.6(B) CO Group No. Selection

In the above example, the caller's extension was assigned Route Advance Step 2. Thus, if all the CO/PBX Lines in CO Groups 2, 4, and 6 are busy, the system will not proceed to CO Group 7, which is registered at Advance No. 4. In a case like this, the system sends a busy tone to the caller, signifying that there are no idle CO/PBX Lines. If the Route Advance Step is 0, the system searches for an idle CO/PBX Line only in the CO group of Advance No. 1.

The above process applies to selection of a CO group when the dial data include an area code, office code, and customer code. Another example of CO group selection, when dial data cover only an office and customer code, is explained next.

Example 2: Office - Customer code

- (1) The office code and customer code are registered in the input dial table. (See Figure 4.2.2.6.2.1.)
- (2) The system refers to the Office Code Table, and locates a Route Table No. from the office code registered in the input dial table and the type of tenant of the caller. The Office Code Table must be filled out by the installer during planning. Figure 4.2.2.6.2.7 shows the Office Code Table.

Office Code		Table o.
m m m	Tenant A	Tenant B
200		
201	} 	
202		
996		
997		
998		
999		

Figure 4.2.2.6.2.7 Office Code Table Format

(3) The system then refers to the Time Scedule and Route Table, shown in Figure 4.2.2.6.2.5(A) and (B), on the basis of the Time Scedule and Route Table No. found in item (2). Thereafter, the system selects a CO group by going through the same process as in item (4), example 1.

The process of CO group selection by type of dial data has already been described. After CO group selection, the dial data to be sent to an idle CO/PBX Line in that group may have to be modified by adding a special code or celeting an unnecessary area code. The necessity of modifying dial data is now explained in a little more cetail.

Suppose the dia data generated by the caller consists of an area code, office code, and customer code; that the system has seized a PBX tie line in the optimum CO group as a result of analyzing the dial data; and that the caller originated a local call that would go through the PBX tie line is connected. The user does not know that the CO/PBX Line seized is a PBX tie line, and does not dial specially to seize a PBX tie line.

It is then necessary to output one of the PBX's CO line trunk group numbers before the telephone number. Because the call is a local call as viewed from the PBX, it is not necessary to dial the area code.

Even if the EX1232/2464 system user dials the area code, that area code must be deleted. It is for this reason that the system must modify the dial data.

The process of automatically modifying dial data is explained below as part of the system processing flow. (The optimum CO group has been selected by the process up to item 3, so this explanation starts with item 4.)

4. After CO group selection, the system locates the Deleting Data Table No. (which is clarified below) corresponding to the selected CO group by referring to a table called the Deleting Index Table. Figure 4.2.2.6.2.8 shows the Deleting Index Table format. The installer must fill out this table during planning.

CO Outgoing	Delete Data	Table No.
Group No.	Tenant A	Tenant B
1		
2		
3		
4		
5		
. 6		
7		

Figure 4.2.2.6.2.8 Deleting Index Table Format

If there is no Deleting Data Table No. in the location corresponding to the selected CO group, there is no data to be deleted from the dial data generated by the caller. If an addition to the dial data is necessary, the system proceeds to that step.

5. The following explanation is based on the assumption that there is a Deleting Data Table No. registered for the selected CO group. In this case again, the process is explained by the type of caller dial data.

Example 1: Area code - Office code - Customer code

(1) The system refers to a table called the Deleting Data Table, and locates the area code in the location corresponding to the Deleting Data Table No. selected in item 4. When the area code in the input dial table (Figure 4.2.2.6.2.1) agrees with the area code from the Deleting Data Table, the area code dialed by the caller is deleted.

Figure 4.2.2.6.2.9 shows the Deleting Data Table format. This table must be filled out by the installer during planning.

Delete Data	Area Code (P	1, P2, P3)
Table No.	Tenant A	Tenant B
1		
2		
3		
4		

Figure 4.2.2.6.2.9 Deleting Data Table Format

(2) If the area code in the input dial table does not agree with the area code from the Deleting Data Table, the area code dialed by the caller is not deleted, and the system proceeds to making an addition to the dial data if necessary.

Example 2: Office code - Customer code

- (1) Because no area code is entered in the input dial table (Figure 4.2.2.6.2.3), the system does not delete anything from the dial data, but proceeds to making an addition to the dial data if necessary.
- 6. Upon completion of dial data deletion (where necessary), the system refers to a table called Adding Index Table, and locates the Adding Data Area/Office Table No. clarified below corresponding to the CO group selected in item 3.
 - Figure 4.2.2.6.2.10 shows the Adding Index Table format. The installer must fill out this table during planning.

CO Outgoing	Delete Data Table N								
Group No.	Tenant A	Tenant B							
1									
2									
3									
4									
5									
6									
7									

Figure 4.2.2.6.2.10 Adding Index Table Format

If there is no Adding Data Area/Office Table No. for the selected CO group, there is nothing to be added to the dial data generated by the caller.

7. It is assumed that an Adding Data Area/Office Table No. corresponding to the CO group selected in item 3 has been registered. Here again, the process is explained by the type of dial data.

Example 1: Area code - Office code - Customer code

(1) In this case, there is an area code so the system proceeds to referring to a table called the Addition Data Area Table. (In example 2 that follows, the dial data consists of an office code and customer code only, so the system proceeds to referring to an Adding Data Office Table. That is, the table referred to differs depending on whether the dial data includes an area code.)

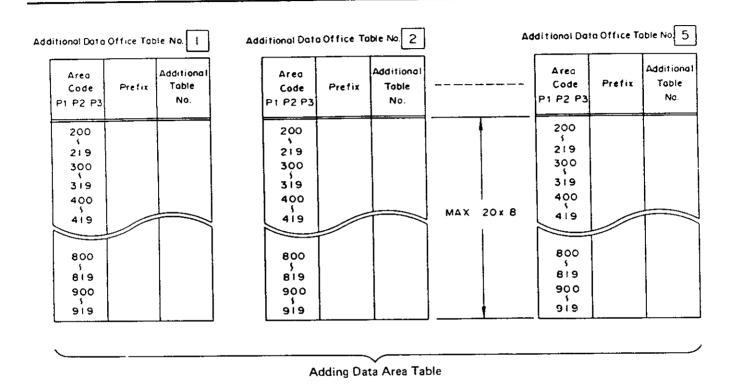


Figure 4.2.2.6.2.11 Adding Data Area Table Format

Note: There are five Adding Data Area Tables, each of which is so formatted that a prefix may be registered for each area code, and an index number may be entered in the adding table column (clarified below). The index number points the adding table where data to be added to the dial data area stored. Area codes are not consecutive, but are broken down into 20 by 8 blocks, as shown in Figure 4.2.2.6.2.11. These tables must be filled out by the installer during planning.

The system selects one of the tables shown in Figure 4.2.2.6.2.11 from the Adding Data Area/Office Table No. selected in item 6.

- (2) The system searches the Adding Data Area Table selected in item (1), example 1, for the area code registered in the input dial table (Figure 4.2.2.6.2.1) and selects the prefix and Adding Table No. registered there. The system stores in memory whether to add a "1" to the dial data to be sent, depending on whether the prefix "1" has been entered. The system then proceeds to referring to the Adding Table indicated by the selected Adding Table No.
- (3) The Adding Table has the actual dial data to be added for each Adding Table No. and a flag showing whether the adding dial data should be placed before or after the normal dial number. Figure 4.2.2.6.2.12 shows the Adding Table format.

Additional Table No.	Additional Flag	Dial
1 2 3 4 5 6 7 8 9		

Figure 4.2.2.6.2.12 Adding Table Format

Note: There are 10 Adding Tables, each of which can register up to 18 digits of adding dial data. Flag 0 must be entered if the adding dial data must be placed before the normal dial number, and flag 1, if the adding dial data must follow the normal dial number. These tables must be filled out by the installer during planning.

The dial data consisting of an area code, office code, and customer code is modified by the above process. The factors that are determined by the system in the process of modifying the dial data to be sent after CO group selection can be summarized as follows:

- O Whether to delete the area code
- Whether a prefix is necessary
- If additional dial data are necessary, data value and their position.

(1) In this case, the system proceeds to referring to a table called Adding Data Office Table. Figure 4.2.2.6.2.13 shows the Adding Data Office Table format.

The system selects one of the tables shown in Figure 4.2.2.6.2.13 from the Adding Data Area/Office Table No. selected in item 6.

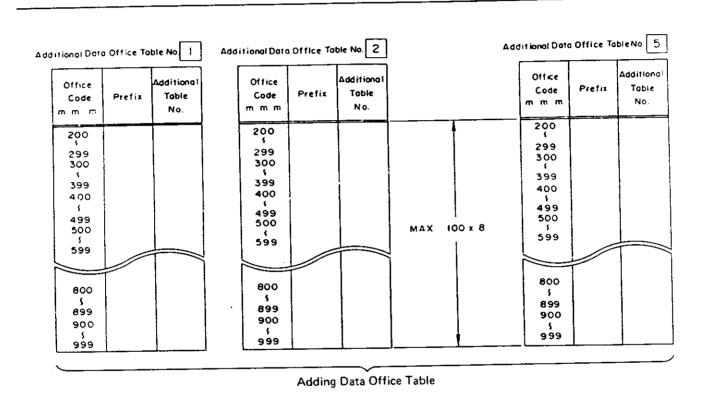


Figure 4.2.2.6.2.13 Adding Data Office Table Format

Note: There are five Adding Data Office Tables, each of which is so formatted that a prefix may be registered for each office code, and an index number may be entered in the adding table column. The index number points the adding table where the dial data to be added are stored. Office codes are consecutive, and are broken down into 100 by 8 blocks, as shown in Figure 4.2.2.6.2.13. These table must be filled out by the installer during planning.

- (2) The system searches the Adding Data Office Table selected in item (1), example 2, for the office code registered in the input dial table (Figure 4.2.2.6.2.1) and selects the prefix and Adding Table No. that are registered there. The system stores in memory whether to add a "1" to the dial data to be sent, depending on whether the prefix "1" has been entered. The system then proceeds to referring to the Adding Table indicated by the selected Adding Table No.
- (3) The Adding Table is the same as the one referred to in item 7, example 1. (See Figure 4.2.2.6.2.12). The system refers to this table, and selects dial data to be added and their position (before or after the normal dial data).

Thus, the dial data, consisting of an office code and customer code, is modified. The factors that are determined by the system in the process of modifying the dial data to be sent after CO group selection can be summarized as follows:

- Whether a prefix is necessary
- O If additional dial data are necessary, data value and their position

Refer to Figures 4.2.2.6.2.14 and 4.2.2.6.2.15 again to review the process of dial data modification by the system after CO group selection. Both figures show the process of dial data modification after CO group selection with reference to the tables concerned. Figure 4.2.2.6.2.14 applies to dial data consisting of an area code, office code, and customer code, and Figure 4.2.2.6.2.15, to dial data consisting of an office code and customer code.

numeric sequence to understand the modification process.

- 8. When the dial data to be output in originating an outgoing call are determined after selection of the optimum CO group, the system proceeds to processing for toll call restriction. (The flow processing toll call restriction is described in detail in paragraph 4.3.7 Programming Toll Restriction.) The system makes the following analysis in this process:
 - (1) The system obtains the value of "Toll Restriction" that has been set for the calling extension. (KT/VP and SLT)
 - (2) The system analyzes the toll plan according to the value of toll-restriction (assumed to be other than "0" because "0" signifies unconditional toll access) and the selected CO group.
 - (3) The system analyzes the caller's dial data according to the North American Dial Number Plan, and determines whether to restrict or permit toll calls by referring to the toll plan.
- 9. If toll calls are permitted, the modified dial data are sent to the CO/PBX Line. If toll calls are restricted a warning tone is sent to the caller. This completes all Optimized Call Routing service.

4.2.2.6.3 CO/PBX Lines Selectable by Optimized Call Routing

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Because effective operation of the Optimized Call Routing feature is a great advantage to the user, its planning by the installer is a very important factor. The installer must, first of all, know the types of CO/PBX Lines connected to the system in planning this feature. As described in paragraph 4.2.2.6.2, the CO groups selectable by the Optimized Call Routing feature are any of groups 1 through 7. Refer to Item No. 12, "CO Outgoing Group", in paragraph 4.1 System Planning.

The CO/PBX Lines in groups 1 through 7 that are subject to the Optimized Call Routing feature are as follows:

- O.D.D. lines
- FX lines
- OUTWATS
- Tie lines (E&M tie lines and PBX tie lines other than the tie lines connected from the S.C.C. office)

4.2.2.6.4. Optimized Call Routing Data Planning Procedure

Optimized Call Routing data can be planned as described below. This planning is to prepare the various tables mentioned in paragraph 4.2.2.6.2. These tables are available as planning sheets. The installer must prepare plans for Optimized Call Routing after becoming familiar with the types and purposes of CO/PBX Lines to be connected to the system.

This paragraph describes the actual planning procedure, showing a system example.

1. Figure 4.2.2.6.4.1 shows the assumed location of the EX-1232/2464 system and the network of

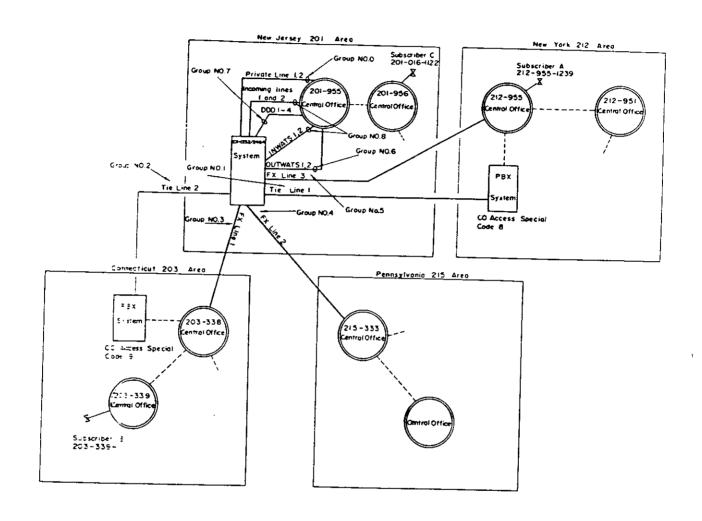


Figure 4.2.2.6.4.1. Assumed CO/PBX Line Network

Planning Procedure

- 1. The CO/PBX Lines that are subject to Optimized Call Routing are those in groups 1 through 7.
- 2. Pay special attention to the PBX tie lines in groups 1 through 7. Enter the area codes for the PBXs to which these tie lines are connected in the E&M Area Code Table. In this example, the area code for tie line 1 is 212, and that for tie line 2 is 203. (See the network diagram in Figure 4.2.2.6.4.1). Enter these area codes and corresponding E&M office group numbers 1 and 2 as shown in Figure 4.2.2.6.4.2.

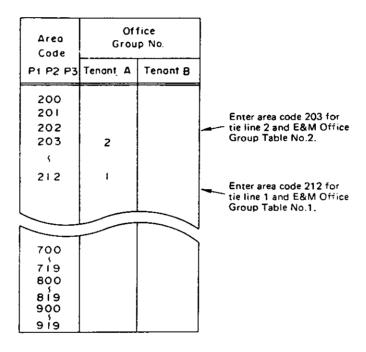


Figure 4.2.2.6.4.2. Example of E&M Area Code Table

Note: If all outgoing calls to the above areas are cheaper than being routed through other lines, it is not necessary to use either the E&M Area Code Table or the E&M Office Group Table. In this case, enter the Route Table Nos. in the General Area Code Table in the part corresponding to the above area codes.

- 3. To determine a Route Table No. for entry in the E&M Office Group Table and Area Code Table that are discussed later, the optimum (least-cost) route to be connected in a specific time zone is now considered. In other words, a Route Table is prepared.
 - (a) Outgoing toll calls in the time zone of 08:00 to 16:59 on weekday to New York, Connecticut, and Pennsylvania (When Time Zone is default. Time Zone can be set freely). Refer to the network diagram in Figure 4.2.2.6.4.1.
 - (i) A PBX tie line is connected to New York and Connecticut, so this route is the cheapest. Pennsylvania can be accessed through OUTWATS, FX line 2, and D.D.D. line; the least-cost route in this time zone would be OUTWATS.

 The cheapest connecting routes, that is, CO group numbers to be registered at Advance No.1, to the different destinations in the specified time zone is determined.

 If outgoing dial data in this time zone are 212-955- (New York) And 203-338-(Connecticut), let the system select PBX tie line groups Nos. 1 and 2 respectively as CO groups.

 If outgoing dial data are 215-333- (Pennsylvania), let the system select OUT-WATS CO group No. 6 as the CO group.
 - Then fill in the Route Table for Time Zone 0 Group. Enter the CO group numbers for these destinations in the order of Route Tables Nos. In the entry example shown in Figure 4.2.2.6.4.3 the CO group numbes for New York, Connecticut, and Pennsylvania are entered in the order of Route Table Nos.
 - (ii) CO groups to be registered at Advance No. 2 are the next least-cost routes, considered when all the least-cost CO/PBX Lines are busy. In accessing New York or Connecticut OUTWATS is the second least-cost route in the specified time zone. Thus, OUTWATS CO group No. 6 should be entered at Advance No. 2. In accessing Pennsylvania, FX line 2 is the second leastcost route, so CO group No. 4 to which FX line 2 belongs should be registered at Advance No. 2.
 - (iii) CO groups to be registered at Advance No. 3 are considered when all the CO groups registered at Advance Nos. 1 and 2 are busy. In accessing New York and Connecticut, FX line 3 and FX line 1 are the third least-cost routes, so enter group No. 5 for FX line 3 and group No.3 for FX line 1 at Advance No. 3. In accessing Pennsylvania, the route through D.D.D. line is the third least-cost, so enter group No. 7 for D.D.D. line at Advance No.3.
 - (iv) CO groups to be registered at Advance No.4 are considered when all the CO groups at Advance Nos. 1, 2, and 3 are busy. In accessing New York and Connecticut, the D.D.D. line is the fourth least-cost route, so enter group No. 7 for the D.D.D. line at Advance No. 4. In this example, there is no CO group to be entered as the fourth least-cost route to Pennsylvania.

The Route Table for Time 0 Group (08:00 to 16:59) has now been prepared by steps (i) through (iv), as shown in Figure 4.2.2.6.4.3. (When Time Zone is default. Time Zaone can be set freely).

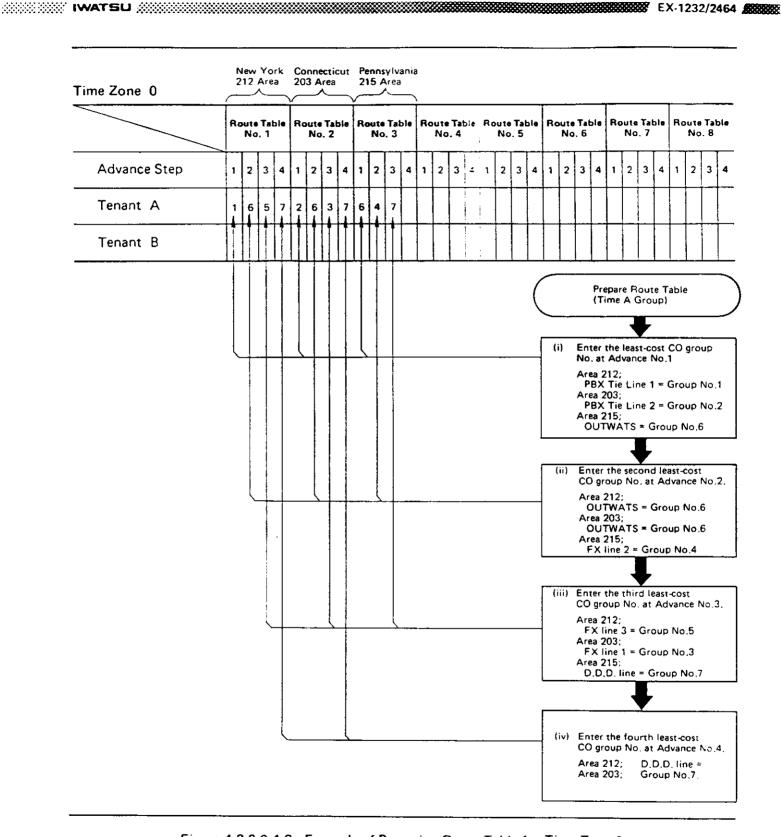


Figure 4.2.2.6.4.3 Example of Preparing Route Table for Time Zone 0

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- (b) Outgoing toll calls in the time zone if 17:00 to 22:59 on weekday to New Work, Connecticut, and Pennsylvania (When Time Zone is default. Time Zone can be set freely).
 - (i) As in the case of item (a) above, PBX tie lines are the least-cost access routes to New York and Connecticut. Enter groups Nos. 1 and 2 for PBX tie lines 1 and 2 at Advance No. 1. In accessing Pennsylvania in this time zone, the least-cost route is FX line 2, unlike the case of item (a) above. Enter group No. 4 for FX line 2 at Advance No. 1.
 - (ii) The second least-cost routes to New York and Connecticut are FX line 3 and FX line 1 respectively. Enter groups Nos. 5 and 3 at Advance No. 2. OUTWATS is the second least-cost route to Pennsylvania in this time zone, so enter CO group No.6 for OUTWATS at Advance No. 2
 - (iii) The third least-cost route to New York and Connecticut is OUTWATS line, so enter CO group No. 6 for OUTWATS at Advance No. 3 The D.D.D. line is the third least-cost access route to Pennsylvania, so enter CO group No. 7 for the D.D.D. line at Advance No. 3.
 - (iv) The fourth least-cost route to New York and Connecticut is D.D.D. line, so enter CO group No. 7 for the D.D.D. line at Advance No. 4. There is no CO group number to be entered at Advance No. 4 as the fourth least-cost route to access Pennsylvania.

Figure 4.2.2.6.4.4 shows a Route Table prepared by going through steps (i) to (iv).

Figure 4.2.2.6.4.4 Example of Preparing Route Table for Time Zone 1

(c) Outgoing toll calls in the time zone of 23:00 to 07:59 on weekday to New York, Connecticut and Pennsylvania (When Time Zone is default. Time Zone can be set freely).

Figure 4.2.2.6.4.5 shows a Route Table prepared in the same way as described in 3 (a) and 3 (b). Only the table is shown, with no explanation.

Time Zone 2	- 1	New 212	Are	ork ≇a	20 20	onn 03 A	ecti Area	cut		15 A		/ani a	a																			
	R	out No	t Ta	ble	R	out No	• Ta	ble	R	oute No	• Ta	ble	R	out No	• Ta	ble	R	ou t	T.	ble	R	oute No	: Ta	ble	R	oute No	: Ta	ble	R	oute No	та 5. 8	—- ble
Advance Step	1	2	3	4	,	2	3	4	,	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A	1	5	7	6	2	3	7	6	4	7	5			 	-					-							<u> </u>					\vdash
Tenant B														-			-		-													_

Figure 4.2.2.6.4.5 Example of Preparing Route Table for Time Zone 2

(d) Outgoing local calls to Office 955 in Area 201

D.D.D. lines (CO group No.7) are the cheapest for outgoing Local calls in any time zone. Therefore, the Route Tables are as Figure 4.2.2.6.4.6.

		No.) le	A o	No		10		u te No		14	Ro	ute No	Tab 4	•		ute No	Tab S	٠.		uta No.		1.		ute No.		14		ute Np.	
Advance Step	1	2	3	4	١	2	3	4	1	2	3	4	1	2	3	•	,	2	3	4	1	2 !	3	4	,	2	,	4	1	2	3
Tenant A	1	6	5	7	2	6	3	7	6	4	7		7									i									
Tenant B																				,		į	Ì								
me Zone 1	R	oute No		ble	Ro		Tal	hie	Ra	ute	Ta'	bile .	Ro	u te	Tab	4		ute No	Tet	ıla :	Ro	ute No.		ble	Ro	ute No		ote	Re	ule No	
Advance Step	$\frac{1}{1}$	2		4	1	2	_	4			3	4	1		3	4	h		. 3	4	,	2	3	4	1	2		4			
Tenant A	1	5	6	,	2	3	6	7	4	6	7		7			_			_	_	-				i			_	<u> </u>		
Tenant 8																	-			_		i					<u> </u>				
me Zone 2	, A	oute No	: Ta	ble	R	No No	T. 2		A	No.	Ta		P.		Tal	ote	Re		Tal	ole .	R	nute No	. 6	ī	<u>.</u>	No	. 7		A.	ou1e No	
		_	1	Ī	П																					1	1	1			
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	ı	2	3	4	1	2	3	4	ľ	2		4	1	2	3	4	1	. 2	3
Advance Step Tenant A	1	\vdash	-	4	H	3	H	4	├	7	-	-	7	┝	3	4	1	2	3	4	1			4	1	2	3	1	l T	2	3

Figure 4.2.2.6.4.6 Example of Route Table for Outgoing Local Calls to Office 955 in Area 201

4. After preparing Route Tables, enter Route Tables Nos. corresponding to the office codes in the tables of E&M Office Groups No. 1 and No.2. (In this example, the areas where PBX tie lines are available are New York and Connecticut.) The entry procedure is shown in Figure 4.2.2.6.4.7.

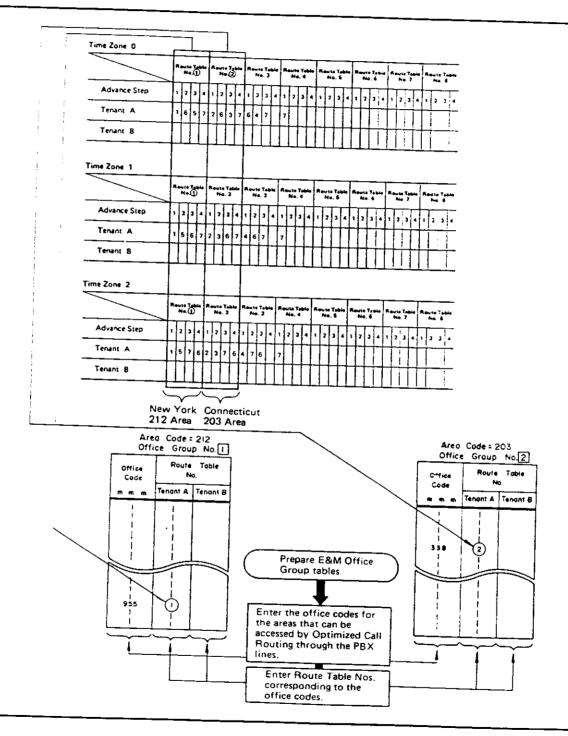


Figure 4.2.2.6.4.7 Example of Preparing E&M Office Group Table

5. Proceed to preparing an Area Code Table. This table is only for the areas where tie lines are not available (Pennsylvania in this example). The entry procedure is shown in Figure 4.2.2.6.4.8.

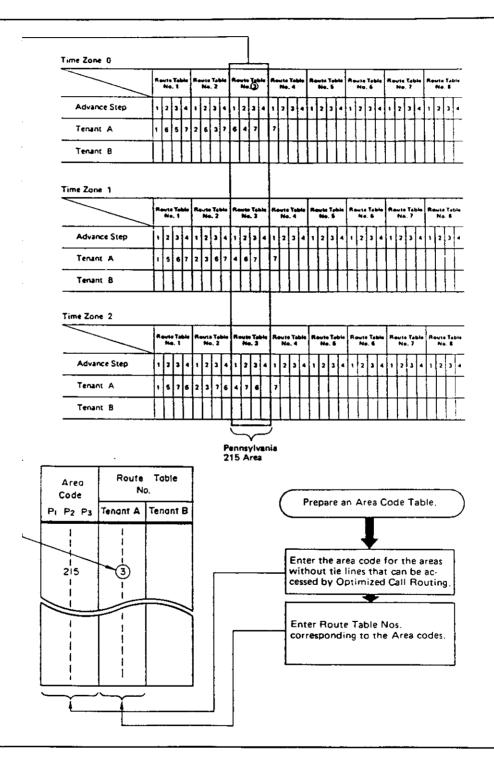


Figure 4.2.2.6.4.8 Example of Preparing Area Code Table

6. Proceed to preparing an Office Code Table. This table is referred to when dial data are for local calls. In this example, the system refers to it when a local call is originated in area 201, New Jersey. An example of preparing an Office Code Table is shown in Figure 4.2.2.6.4.9.

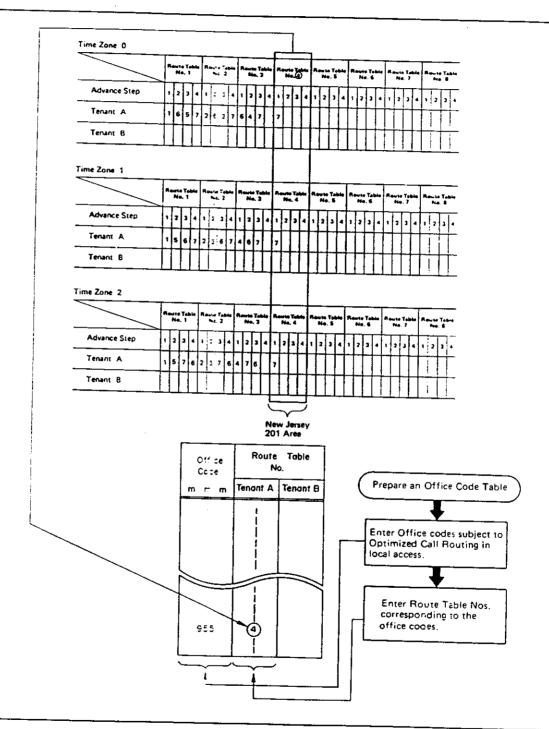


Figure 4.2.2.6.4.9 Example of Preparing Office Code Table

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7. The optimum CO groups for the time zones wherein calls are originated can be determined from previously prepared tables. It is necessary, therefore, to prepare dial data to be sent to these CO groups. The procedure for preparing tables for this purpose is explained below, referring to examples.

Example 1: An outgoing toll call placed by pressing the OPT key, or dialing Optimized Call Routing special code 90 and 212-955-1234 (Subscriber A in the network diagram of Figure 4.2.2.6.4.1). The following description proceeds in the order of Advance Nos. in Table No. 1 (Area 212, New York), Route Table (Time 0 Group).

(a) CO group No. 1 (PBX tie line 1) selected (See Advance No. 1, Figure 4.2.2.6.4.10)

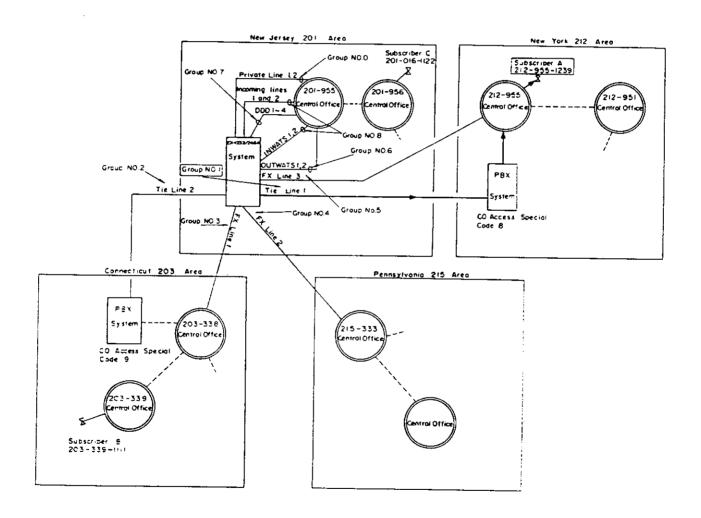


Figure 4.2.2.6.4.10 Example of Outgoing Toll Call via CO Group No. 1 (Caller dialing 212-955-1234)

The dial data to be sent through the PBX tie line must be modified as follows:

- Delete area code 212.
- C Add a special code ("8" in this example) before the office code to seize the CO/PBX Line through the PBX.
- 2 Add pause data between special code "8" and the office code to generate a 2-second pause between dialing the special code and receiving the dial tone.

The modified dial data will be:

An example of entering the above modified dial data in a Planning Sheet is shown in Figure 4.2.2.6.4.11.

- (b) CO group No. 6 (OUTWATS) selected (Advance No. 2)
 - In this case, it is not necessary to modify dial data. Thus, no planning is necessary.
- (c) CO group No. 5 (FX line 3) selected (Advance No. 3) (See Figure 4.2.2.6.4.12.)

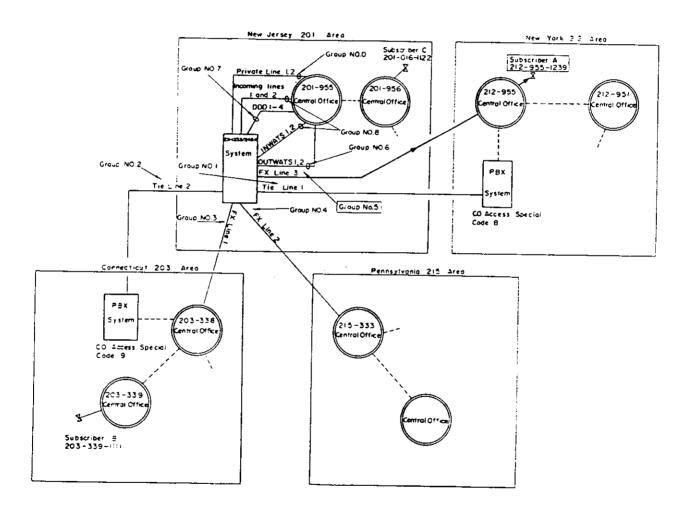


Figure 4.2.2.6.4.12 Example of Outgoing Toll Call Through CO Group No. 5 (Caller dialing 212-955-1234)

The dial data to be sent through the FX line must be modified as follows:

Delete area code 212.

This makes the dial data: 955-1234

This planning example is illustrated in Figure 4.2.2.6.4.13

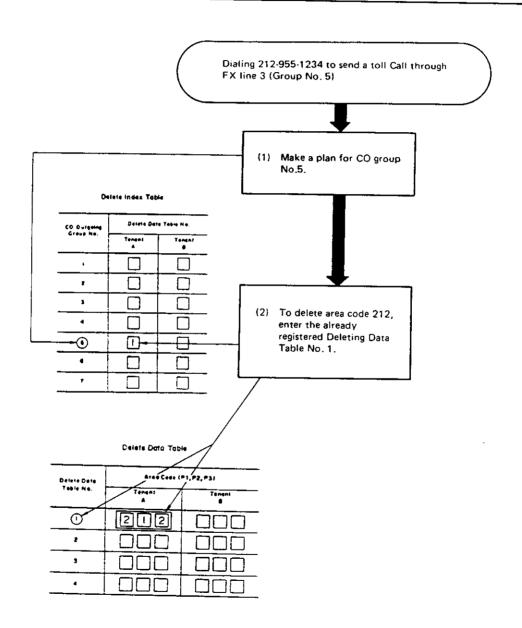


Figure 4.2.2.6.4.13 Planning Example for Dial Data Modification (FX line 3)

(d) CO group No. 7 (D.D.D. line) selected (Advance No. 4)

In this case, it is not necessary to modify dial data. Thus, no planning is necessary.

Example 2: An outgoing toll call by pressing the OPT key, or dialing Optimized Call Routing special code 90 and 203-339-1111. (Subscriber B in the network diagram of Figure 4.2.2.6.4.1). The following description proceeds in the order of Advance Nos. in Table No. 2 (Area 203, Connecticut), Route Table (Time Zone 0 Group).

(a) CO group No. 2 (PBX tie line 2) selected (See Advance No. 1, Figure 4.2.2.6.4.14.)

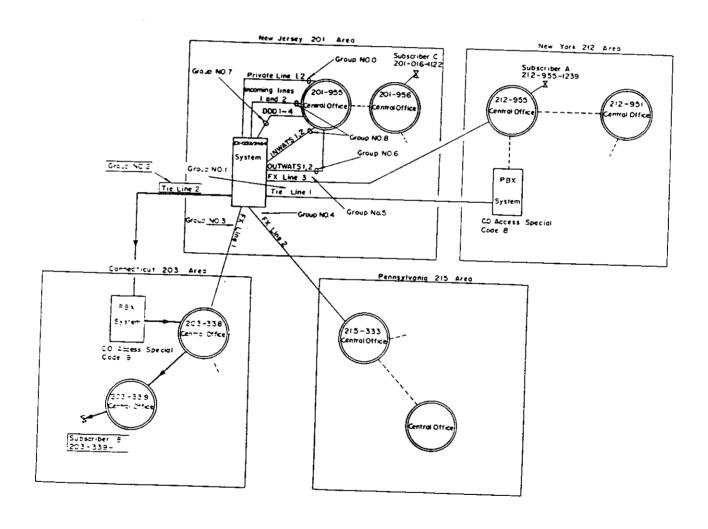


Figure 4.2.2.6.4.14 Example of Outgoing Toll Call Through CO Group No. 2 (Caller dialing 203-339-1111)

The dial data to be sent through the PBX tie line must be modified as follows:

- Delete area code 203.
- Add prefix 1 before the office code.
- 2 Add the special code ("9" in this example) to seize the opposite PBX system before prefix 1.
- © Add pause data of 2 seconds (to wait for the dial tone) between the special code and prefix 1. The modified dial data will be:
 - 9 (Pause data: 2 seconds) 1 339 1111

An example of actually entering the above modified dial data in a Planning Sheet is shown in Figure 4.2.2.6.4.15.

(b) CO Group No. 6 (OUTWATS) selected (Advance No. 2)

In this case, it is not necessary to modify dial data. Thus, no planning is necessary.

(c) CO group No. 3 (FX line 1) selected (Advance No. 3) (See Figure 4.2.2.6.4.16.)

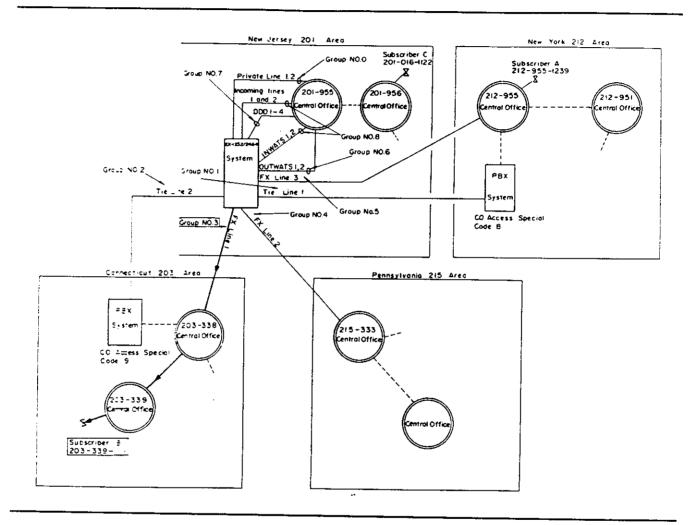


Figure 4.2.2.6.4.16 Example of Outgoing Toll Call Through CO Group No.3 (Caller dialing 203-339-1111)

The dial data to be sent through the FX line must be modified as follows:

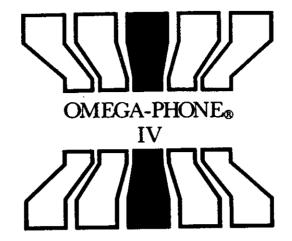
- O Delete the area code 203.
- O Add prefix I before the office code.

This makes the dial data: 1-339-1111

This planning example is illustrated in Figure 4.2.2.6.4.17.

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EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL



2.3 SYSTEM FEATURES AND THEIR OPERATIONS

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EX-1232/2464 ELECTRONIC KEY TELEPHONE SYSTEM INSTRUCTION MANUAL



2.3 SYSTEM FEATURES AND THEIR OPERATIONS

Service features provided by the system are arranged in the alphabetical order and each of them is described in details. Programming functions are described in Section 2.4 EX-1232/2464 Programming Functions.

List of EX-1232/2464 Service Features

Feature	Package	Feature	Package
A. 1 Attendant		C. 1 Calculator	Α
1. Attendant Call Priority	1	2 Call Abbreviation	
2. Attendant Dedicated ICM Line		3 Call Back Queuing	
3. Attendant DSS Calling		4 Call Forward	
4. Attendant Intercept		1. Call Foward	
5. Attendant Recall		2. Busy Call Forward	1
6. Serial Call		5 Call Monitor	1
7. Chain Call	1	6 Call Park	
8. Call Release		1. Call Park	
9. Through Dialing		2. Call Park Pickup	
10. Overflow Transfer		3. Call Park Split	
11. Dual Attendant		7 Call Pickup Group	
12. Trunk Forced Release		8 Camp On	
13. Station Forced Release		1. COL Camp On	
14 Call Forward Forced Release		2. ICM Camp On	
15. Busy Call Forward Forced		3. Camp On Pickup	
Release		4. Camp On Recall	
2 Automatic COL Release		9 Clock Adjustment	
3 Automatic ICM Termination		10 COL Selection	
4 Automatic Line Answer		11 Conference	
5 Automatic Trunk/Station Release		Add On Conference	
B. 1 Back Ground Music		2. Automatic Add On	
2 Busy Lamp Field		3. Conference Hold	

List of EX-1232/2464 Service Features (con.)

Feature	Package	Feature	D
C.1 4. Multi Line Conference			Package
Trunk to Trunk Conference	1	N.1 3. Automatic Night Assign	
6. Conference Camp On		4. Universal Night Assign	
D. 1 Direct Call Pickup		5. Universal Night Assign Pick-Up	
2 Direct COL Assignment		O. 1 On-Hook Dialing	
3 Disconnect	1	2 Optimized Call Routing	Α
4 Display Mode Change	1	3 Optional Equipments	
5 Do Not Disturb	}	1. Station Hard Hearing Handset/	
1. Do Not Disturb		Station Noise Cancelling	
2. Do Not Disturb Forced Release		Handset	
E. 1 Equal Access Dialing	1	2. Head Set Adapter	
2 E&M Tie Line Service	A	3. External Station Loud Ringer	
F. 1 Flash (/Dial Tone Reorder)	A	4. External Alarm Signal	
2 Flexible Key Assignment		4 Outgoing Address Signal Outpulsing	
3 Floating COL Group Access	_	5 Outgoing Restriction	
4 Follow Me	A	6 Override	
H. 1 Hands Free Stations		1. Busy Override	
2 Holding		2. Do Not Disturb Override	
Exclusive Hold		3. Executive Override	
2. System Hold		4. Call Waiting	
3. Consultation Hold		P. 1 Paging Call	
		1. All Call with Meet Me	
A CONSTITUTION HOLD MECALL		2. All Zone Call with March 84	
5. Automatic Hold 6. Music On Hold		The Court Call Middle Media	
7. Hold Recall		All Group Call with Meet Me Zone Call with Meet Me	
1		5 Grove Call with Meet Me	
8. Ring Back Tone On Hold . 1 ICM Calling		5. Group Call with Meet Me	
		6. Attendant Paging Call with Meet Me	
1. Calling Mode Change		2 Pickup Restriction	
Establishment of ICM Calling Method		3 Preselection	
· · - -		4 Prime Station	
2 ICM Path Termination		5 Privacy	
3 Incoming COL Calling		6 Private Line	
master group Hullt Call		7 Programming	
2 Meet Me			
3 Message	ΔΒ	System Programming Terminal	
Absense Message	В	2. Dynamic Programming 3. Programming COL Lines	
2. Memo of Call	į	The state of the s	
3. Message Waiting	[4. Programming from KT/VP	
4. Night Automatic Answering	В	5. Remote Programming	В
5. Reminder	В	Q. 1 Quick Mode Operation	
6. Voice Message Waiting	В	R. 1 Redialing	
7. Voice Mail	В	S. 1 SCDR	$\Delta \mathbf{A}$
8. Electronic Mail	ı	2 Secretarial Hot Line Termination	
4 Microphone Cut Off	В	3 Sender Time Out	
5 Multi Level Toll Restriction	, 1	4 Soft Ringer	
1 Night Service	Α	5 Speed Dialing	
Switching Night Mode	İ	6 Station Class of Service	
2. Night Relay	1	7 Station Lock Out	
	1	8 System Alarm Indications	

Feature	Package	Feature	Package
S. 9 System Initialization T. 1 Tenant Service		T. 2 Timed Trunk Queuing 3 Transfer	

Note: A/B: Either package A or B is necessary.

Balnk: Standard feature.

Δ: Package is necessary depending on the feature.

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2.3.A.1 Attendant

The attendant console has many features that are not available from other stations.

Conditions

Typical features of the attendant console is as shown below.

- A.1.1 Attendant Call Priority
- A.1.2 Attendant Dedicated ICM Line
- A.1.3 Attendant DSS Calling
- A.1.4 Attendant Intercept
- A.1.5 Attendant Recall
- A.1.6 Serial Call
- A.1.7 Chain Call
- A.1.8 Call Release
- A.1.9 Through Dialing
- A.1.10 Overflow Transfer
- A.1.11 Dual Attendant
- A.1.12 Trunk Forced Release
- A.1.13 Station Forced Release
- A.1.14 Call Foward Forced Release
- A.1.15 Busy Call Foward Forced Release

(See Section 2.3.D.5.2 Do not Disturb Forced Release.)

(See Section 2.3.0.6.2 Do not Disturb Override.)

(See Section 2.3.O.6.1 Busy Override.)

(See Section 2.3.C.6.4 Call Waiting.)

(See Section 2.3.C.8 Camp On.)

(See Section 2.3.P.7 Programming.)

(See Section 2.3.C.11.2 Automatic Add On.)

(See Section 2.3.N.1 Night Service.)

(See Section 2.3.P.1 Attendant Page Call with Meet Me.)

(See Section 2.3.S.6 Station Class of Service.)

(See Section 2.3.B.2 Busy Lamp Field.)

(See Section 2.3.C.9 Clock Adjustment,)

(See Section 2.3.C.6.2 Call Park Pickup.)

Refer to each paragraph for other features of the attendant console.



2.3.A.1.1 Attendant Call Priority

This function provides Attendants with call priority to make effective use of individual calls and Paging calls.

2.3.A.1.1.1 Attendant Call Override

An Attendant can call a station user being called on an ICM line by an ordinary station (other than an Attendant, or Executive KT/VP) user. When an Attendant call arrives, the former call is overridden and the calling party receives a Busy Tone. (See Section 2.3.0.6.4 Call Waiting.)

Conditions

- o A call from an Executive station or another Attendant cannot be overridden by the Attendant.
- o When a call is overridden, an Interrupt Tone is applied to the called KT station instead of a Voice Call Burst.

2.3.A.1.1.2 Attendant Paging Override

An Attendant can originate a paging call even when a station user other than Attendant's is engaged in a paging call. In this case, the preceding paging call is stopped and a Busy Tone is connected to the caller.

Conditions

- o A paging call from an Attendant cannot be overridden by another Attendant in the same tenant.
- o An overridden paging call is never reconnected.

2.3.A.1.1.3 Attendant Priority Call

A call from an Attendant rings in precedence to any other call.

Conditions

- o Except for the case that the called party has already received a call from another Attendant or an Executive station.
- o An Attendant can call a Off-hook Signal Denied KT/VP even while off-hook.

2.3.A.1.2 Attendant Dedicated ICM Lines

This facility always assures the availability of an ICM Line for Attendant use.

Conditions

- o If an Attendant Dedicated ICM Line is idle when an Attendant originates an ICM call, the Attendant's station seizes the line.
- o Stations other than Attendants' cannot seize the Attendant Dedicated ICM Lines to originate calls.
- o A non-attendant station user can perform an Add-On Conference or a Transfer operation on an Attendant Dedicated ICM Line. (See Sections 2.3.C.11.1 Add On Conference and 2.3.T.3 Transfer.)

Programming

Line Specification Item 1 Line Class (ICM No.): 17 (ATTND Dedicated)

If an station user other than the Attendant operates Dial Tone Reorder while conversing on the Attendant Dedicated ICM Line, the ICM call is disconnected and he may seize a new idle ICM. (See Section 2.3.F.1.2 Dial Tone Reorder.)



2.3.A.1.3 Attendant DSS Calling

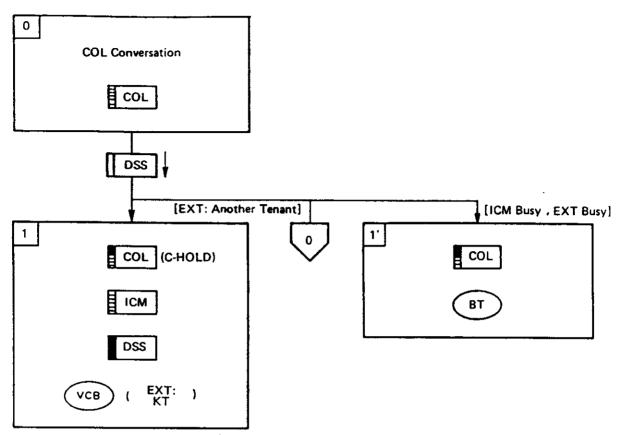
Attendants can originate a DSS (Direct Station Select) call by depressing the DSS key associated with the desired station.

Conditions

- o If an Attendant extension is idle, the Attendant can directly originate a DSS call by depressing the DSS key on the Attendant Console.
- If the Attendant depresses the DSS key while conversing on an ICM line or calling on ICM, the ICM is disconnected and a new ICM call is initiated.
- o If the Attendant depresses the DSS key while conversing on a COL, the COL is automatically placed on Consultation Hold and a new ICM call is initiated. (See Section 2.3.H.2.5 Automatic Hold.)
- o If the Attendant depresses the DSS key while participating in a COL conference, the COL is automatically placed on Conference Hold and a new ICM call is initiated. (See Section 2.3,H.2.5 Automatic Hold.)
- o A DSS call during Multi-line Conference is ignored.
- o If the Attendant depresses the DSS key while conversing on a COL line that is placed on Conference Hold, the depression is ignored. (See Section 2.3.C.11.3 Conference Hold.)

Operation Guide

(Off-hook or SPKR on) DSS





2.3.A.1.4 Attendant Intercept

Various Attendant Intercept features are provided for COL and E&M Tie Line. For calls that cannot be completed under a certain condition, automatic routing takes place to the attendant.

2.3.A.1.4.1 COL Attendant Intercept

The Attendant Intercept feature is provided for COLs.

- Conditions
 - o Attendant intercept occurs when a COL incoming call rings for a certain time (10 to 255 seconds).
 - o Attendant intercept occurs when all stations called on the COL incoming call are busy.
 - o Attendant Intercept terminates on the Recall key. (See Section 2.3.A.1.5 Attendant Recall.)
 - o Attendant Intercept does not occur in the Night Mode.
 - o Attendant Intercept does not occur on an Attendant Pickup Restricted COL.
 - o Attendant Intercept does not occur when there is no Attendant.
 - o This feature is allowed to be preprogrammed on each COL basis.
- Programming
 - Line Specification Item 10

COL Attendant Intercept (CO NO.)

0: Not Assigned
1: Assigned

o Station Class of Service Item 25

Pickup Restriction (EXT NO.)

Each CO Lit: No Function
Blink: Pickup Restriction

o System Constants Item 8

Attendent Intercept (no Answer)
10 to 255 seconds

The Attendant Intercept feature is provided for E&M Tie Lines.

Conditions

- o Attendant Intercept occurs when a station user does not answer a call thru E&M Tie Line for a certain time. (10 to 255 seconds).
- o Attendant intercept occurs when a call thru E&M tie line accesses busy station.
- o Attendant Intercept occurs if the COL group is busy or pickup restricted when the E&M accesses COL Group.
- o This feature is allowed to be preprogrammed on each E&M tie line basis. (See Section 2.3.A.1.4.1 COL Attendant Intercept.)
- o Attendant Intercept terminates on the Recall key. (See Section 2.3.A.1.5 Attendant Recall)
- o Attendant Intercept does not occur in the Night Mode.
- o Attendant Intercept does not occur on an Attendant Pickup Restricted E&M tie line.
- o Attendant Intercept does not occur when there is no Attendant.



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2.3.A.1.5 Attendant Recall

This facility automatically alerts the Attendant after a prescribed period of time. A camped-on call, a COL held call, or an unanswered COL incoming call is terminated on the Attendant recall key (RC _)

Conditions

- o The RCL key lamp on the Attendant Console flashes in the I-USE pattern during Attendant Recall.
- o Hold Recalls to and from the Attendant are terminated as Attendant Recalls.
- o If no Attendant is connected, an Attendant Recall other than the Attendant Intercept terminates on the Prime Station as a COL Recall. (See Section 2.3.P.4 Prime Station.)

Programming

- o System Constants Item 4, Hold Recall Timeout (1 to 255 seconds)
- o System Constants Item 5, Camp On Timeout (1 to 255 seconds)
- o System Constants Item 8, Attendant Intercept (10 to 255 seconds)

2.3.A.1.5.1 Attendant Recall Pickup

An Attendant can pick up an Attendant Recall by depressing the RCL key on the Attendant Console.

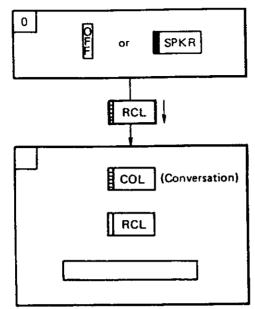
Conditions

- o If Attendant has two or more Attendant Recalls, he picks up recalls on a first-come-first-answered
- o If Attendant performs this operation while conversing on a CO or ICM line, the conversing call is automatically disconnected and the recall is answered.
- o When Attendant picks up the recall the Hold EXT No. or Camp On called EXT No. is displayed on the Attendent display.

Operation Guide

(Off-hook or SPKR) on) RCL

Operation Flow



(nn: Hold EXT number of Camp-On called EXT No.)



Conditions

- o When the Attendant answers the Attendant Recall, the following contents are displayed on the
 - 1. When a call is answered after a COL Hold Recall or COL Camp On Recall continues for a preprogrammed period of time.

31				Λ
ATT Recall	СО	1	Forward From 2	7

- 2. COL Attendant Intercept.
- o When Attendant answers a COL incoming call which is not answered for a certain time.

31			 					0
ATT	l n t	ercept	СО	3	ΝO	ANS	EXT	2 7

o When a call is answered which all the station called on a COL incoming call are busy.

31		0
ATT Intercept	Coll Busy	EXT 28

- 3. E&M Attendant Intercept
- o When a call is answered which a station user does not answer a call thru the E&M tie line for a certain

o When a call is answered which a Station called thru the E&M tie line is busy.

31																		C)
ATT	1	n t	е	r	С	е	р	t	E	&	М	 E	3 u	s	У	Е	хт	2 8	7

EX-1232/2464

o When a call is answered which the COL Group Accessed thru the E&M tie line is busy.

J					1
ATT Inter	cept	E & M	Busy	$C \circ G =$	1

o When a call is answered which the COL Group accessed from the E&M tie line is restricted.

31						0
ATT	Inter	cept	E&M	Deny	C O G =	2

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2.3.A.1.6 Serial Call

Once a serial call is set by an Attendant, the call returns to the Attendant after it is disconnected by a transferred station.

Conditions

- o Under serial call condition, the COL is kept held after the transferred call is disconnected by a station and an Attendant Recall rings.
- o RBT is sent to the COL during Attendant Recall.
- Even though Serial Call is set, COL is disconnected and Attendant Recall is canceled when a disconnect signal from the COL is detected.

Operation Guide

(COL Conversation) SER + Transfer Operation (See Section 2.3.T.3 Transfer.)

When an Attendant depresses the DSS, ALL, ZONEn, GRPn, ALL ZONE, or ALL GRP key while ICM calling, the call is interrupted and a new call is automatically initiated.

Conditions

- o WT is accessed if Attendant depresses one of these keys corresponding to another tenant's station or an uninstalled station.
- o This feature is available during BT or WT connection.
- Operation Guide

(ICM Calling) DSS (ALL, ZONEn, GRPn ALL ZONE, GRP)



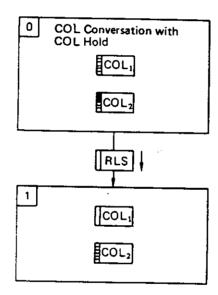
2.3.A.1.8 Call Release

While conversing on a COL/ICM call or being idle, this feature allows an Attendant to return automatically to the newest held COL call except Call Park.

- Conditions
 - o When conversing on a COL/ICM line, the call is automatically disconnected.
 - o If there is no held COL call, an ICM held call may be answered.
- Operation Guide

(Off-hook or SPKR on) RLS

■ Operation Flow

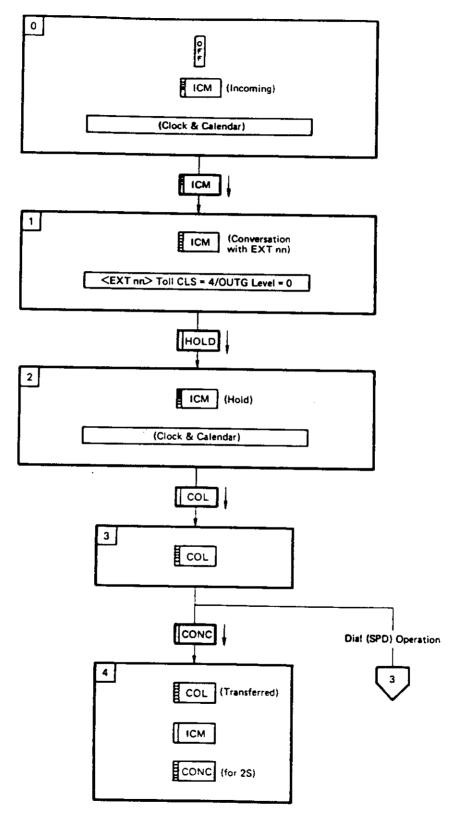


When station users desire or are required to use Attendant assistance in the completion of outgoing Central Office calls, this feature allows the attendant to select the trunk facility and Pass to the station user so that he may directly dial the call.

Conditions

- o An Attendant can choose whether to transfer the COL immediately after seizing it or to transfer it after dial out.
- o Outgoing level and class-of-restriction of the station are displayed on the Attendant display before the operation is completed.
- o Even if the COL is transferred by Through Dialing facility, the dials are subject to Toll Restriction when the transferred station user originates outgoing dials.
- o Impossible after ICM hold time out.
- Operation Guide

■ Operation Flow



2.3.A.1.10 Overflow Transfer

This feature enables the Attendant to transfer the surplus incoming calls automatically when the Attendant has many incoming calls or held calls.

Conditions

- o To activate this feature, the threshold number of held or incoming calls and the destination station number should be specified in the system data.
- o Camped-on calls are not included in the count.

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- o Attendant Recall, Consultation Hold Recall, and COL/ICM Callback are not transferred.
- o The threshold number and the destination number are programmed for each Attendant.

Programming

System Constants Item 11, Overflow Transfer Minimum (Attendant 1 or 2) 3 to 9 (lines)

System Constants Item 12, Overflow Transfer Station (Attendant 1 or 2) EXT No. (destination)



2.3.A.1.11 Dual Attendant

Up to two Attendants can be connected to one system and they can work independently and simultaneously.

Conditions

- o A KT/VP with an DSS console works as an Attendant.
- o If there is only one Attendant in a tenant, the Operator No. is '0'.
- o If there are two Attendants within the same tenant, operator numbers '01' and '02' are assigned to the respective Attendants.
- o Each Attendant can be used as a programming terminal non-simultaneously.
- o No Attendant can be used as a programming terminal while remote programming with the Personal

Programming

System Constants Item 19 Attendant EXT Assignment (Attendant 1 or 2). EXT NO (destination)

This feature allows an Attendant to display each COL or ICM trunk status on its display or to release the trunks.

Conditions

- o Valid only for trunks assigned to the same tenant as Attendant.
- o This feature is allowed only when the ATTND KT/VP is off-hook.

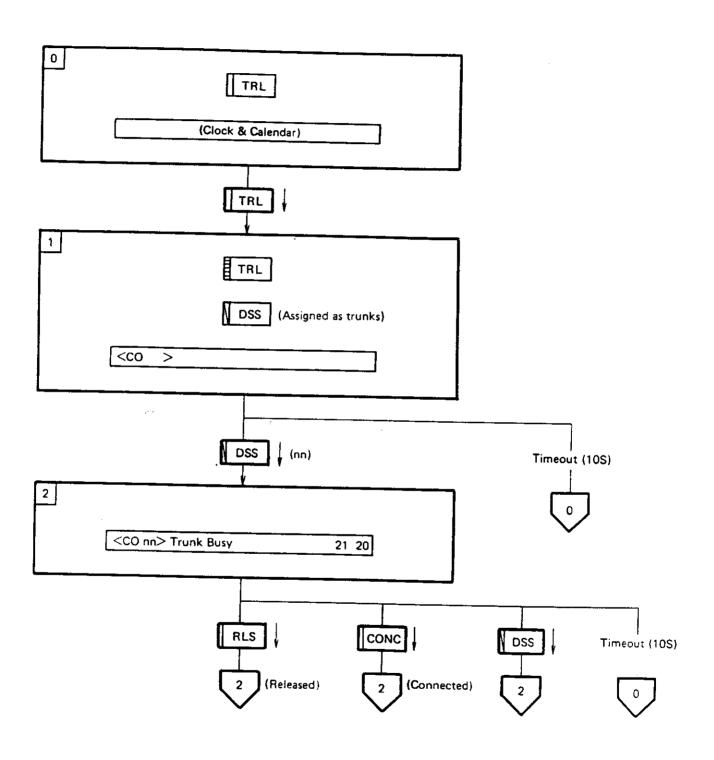
IWATSU

- o The status of trunks is classified as follows:
 - i) Trunk Idle: Idle
 - ii) Trunk Busy: Incoming, conversing or held
 - iii) Trunk Released: Forced Released
 - iv) No Trunk: Not Installed
- o If the trunk is busy, the conversing station number is also displayed.
- o While a trunk is released, all resources connected to the trunk are kept idle and the trunk becomes unavailable.
- o An ICM call during Consultation hold cannot be released.
- o A released trunk becomes available when the connect operation is done, to depress the connect key (CONC), after trunk selection.
- o When the Attendant depresses the TRL key, the BLF indications are interrupted and the status of each trunk is displayed with lamps. A trunk is specified by depressing the corresponding key. (See Section 2.2.3.1.1 KT/VP Key Lamp.)

Operation Guide

(ATTND KT/VP Off-hook) TRL + DSS + RLS (CONC)

Operation Flow



2.3.A.1.13 Station Forced Release

This feature allows an Attendant to display each station status on its display or to release stations.

- Conditions
 - o Valid only for extensions assigned to the same tenant as Attendant.

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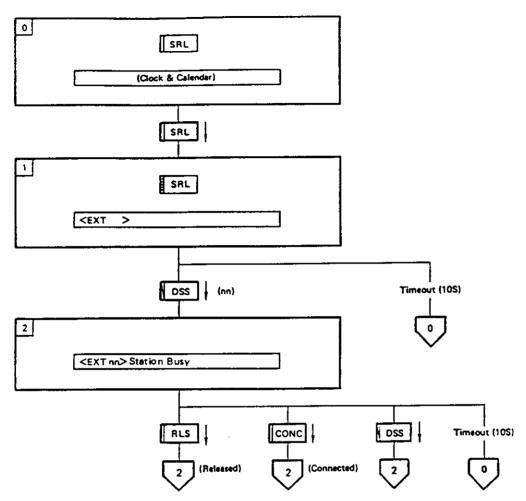
- o This feature is valid only when the ATTND KT/VP is off-hook.
- o Station status is classified as follows:
 - i) Station Busy: COL/ICM conversing
 - ii) Station Idle: Idle
 - iii) Lock Out: During station lockout
 - iv) Released: Forced released
 - v) No Station: Not installed
- o An extension that is forced released cannot be used until restored by the Attendant.
- An station that is forced released is indicated on the busy lamp field.
 (See Section 2.3.B.2 Busy Lamp Field.)
- o If an station that is originating a COL/ICM call or is receiving a call is forced released, the following is performed:
 - i) COL Originating/conversing: COL is disconnected
 - ii) COL Conference: COL changes to conversing/Conference
 - iii) Trunk-tc-Trunk operation EXT: changes to Attendant Recall
 - iv) COL Hod operating station: changes to Attendant Recall
 - v) COL Conference Hold operating station: COL changes to conversing/Conference
 - vi) COL Recall called station: changes to Attendant Recall
 - vii) COL Ca back called station: Callback terminates
 - viii) COL RGT called station: Ringing continues.

- ix) ICM Originating/Conversing: ICM is disconnected
- x) ICM Conference: ICM changes to conversing/Conference
- xi) ICM Hold operating station: ICM is disconnected
- xii) Consultation Hold operating station: ICM is disconnected
- xiii) ICM Hold Recall called station: : Ringing continues.
- xiv) ICM Callback called station: Ringing continues.
- xv) ICM Voice/Tone called station: Ringing continues.
- xvi) Master Group Hunt called station: Ringing continues.
- xvii) (All) Group Call called station: Ringing continues. (See Section 2.3.S.7 Station Lock Out.)

Operation Guide

(ATTND KT VP Off-hook) SRL + DSS + RLS (CONC)

■ Operation Flow





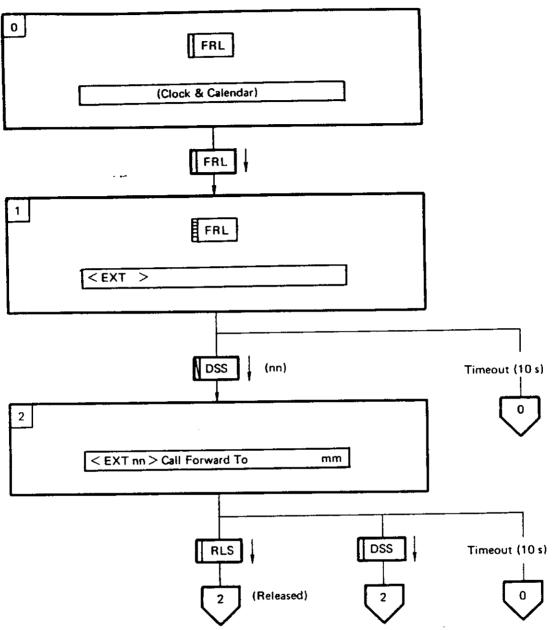
2.3.A.1.14 Call Forward Forced Release

The Attendant can display the Call Forward/Busy Call Forward and DND status of each station on the Attendant display and can cancel them.

Conditions

- o This feature is permitted when the Attendant KT/VP is Off-hook.
- o Call Forward (Busy Call Forward) is not displayed unless being activated.
- o If Call Forward (Busy Call Forward) and DND are in operation at the same time, they are canceled simultaneously.
- o An extension is specified with a DSS key on the Attendant console.
- o Valid only for stations of the same tenant as Attendant
- Operation Guide





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2.3.A.1.15 Busy Call Forward Release

This feature allows the Attendant to display Busy Call Forward status of each station on the Attendant display and to cancel Busy Call Forward. (See Section 2.3.A.1.14 Call Forward Forced Release.)

2.3.A.2 Automatic COL Release (From COL)

This Feature provides disconnection of COL conversation by a disconnect signal from the COL.

Conditions

- o Feature is permitted only when a station user is engaged in a COL conversation. If a call is being originated, the disconnect signal can be detected but is ignored until Sender Timeout.
- o During a Trunk to Trunk Conference, if the disconnect signal from either COL is detected, both COLs are immediately disconnected.
- o The length of the Disconnect Signal can be selected independently for each COL among from 90 ms, 150 ms, 500 ms, 600 ms, and 1.5 s. Only those Disconnect Signals exceeding the selected length are detected. (See Section 3.6.2.4.2.2 CTRK-ME.)
- o Disconnect signals are valid when detected from COLs which are programmed as disconnect signal

Programming

Line Specification Item 9 Disconnect signal (COL No.): 1 (enable) 0 (disable)

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2.3.A.3 Automatic ICM Termination

This feature allows a KT/VP user to assign DSS key for Stations, Master Group Hunt, or Paging by Flexible Key Assignment. A KT/VP user is permitted to initiate ICM calls only by depressing the assigned key.

Condition

Refer to Section 2.3.F.2 for Flexible Key Assignment.

- When this operation is made while conversing on a COL, the COL is automatically placed on Exclusive Hold, the TRN key lamp indicates I-USE, and an ICM call is initiated (when a station or Master Group Hunt is specified.)
- o When a key on which Paging is assigned is depressed while conversing on a COL, the COL is automatically placed on System Hold.
- o When this operation is made while conversing on an ICM, the ICM is disconnected and a new call is initiated.
- o If ICM busy BT (busy tone) is connected.
- o The Automatic ICM key can be used for Preselection (for stations only).
- o An incoming call from a station predetermined as a destination of an Automatic ICM Termination is indicated on the Automatic ICM key lamp. In this case, the incoming call can be answered by depressing the Automatic ICM key (for stations only).
- o A busy indication is made on the Automatic ICM key lamp when the station predetermined as a destination of Automatic ICM Termination is off-hook (for stations only). (See Section 2.3.A.3.1 Key Lamp.)

Programming

1

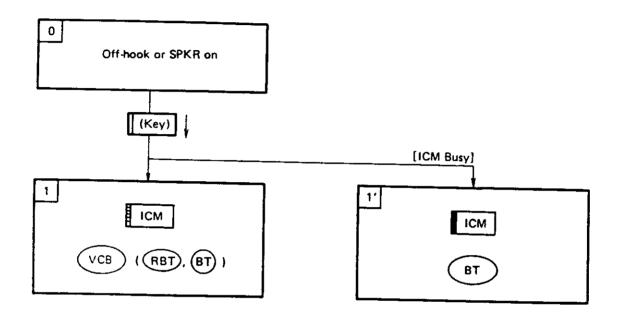
Station Class of Service Item 26: KT Key Assignment (EXT. No. – Key No.)



■ Operation Guide

(Off-Hook or SPKR on) (Key) |

Operation Flow



2.3.A.3.1 Key Lamp

IWATSU

A key lamp which assigned as an automatic ICM key indicates the status of destination station.

- Conditions
 - o Status of off-hook or speaker on is indicated as busy; any other status is indicated as idle.
 - o A call from destination station of an automatic ICM is indicated on the automatic ICM key lamp.

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2.3.A.4 Automatic Line Answer

This feature provides a KT/VP user with automatic response by lifting the handset or depressing the SPKR key.

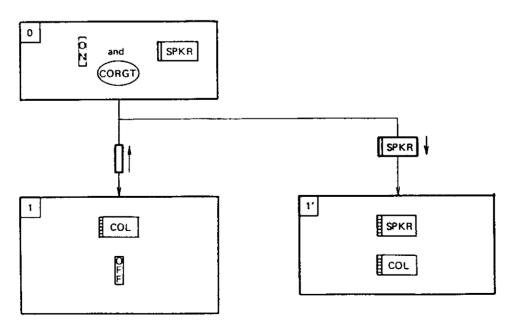
Condition

- o COL auto-answer deny and/or ICM auto-answer deny may be programmed for each station.
- o If two or more incoming calls can be automatically answered at the same time, the priority order of audible indications is applied. If they are the same in priority order, they are answered on a first-come-first-answered basis.
- o Paging calls are excepted.

Programming

Operation Guide

Operation Flow



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2.3.A.5 Automatic Trunk/Station Release

System resources, such as trunks and stations, are automatically released upon timeout to facilitate effective use.

2.3.A.5.1 Permanent Signal Timeout

If a station user does not dial for 10 seconds after seizing ICM line, the line is released and a warning tone is connected to the station.

2.3.A.5.2 Partial Dial Timeout (COL)

If a station user does not dial for 10 seconds after seizing COL, the outgoing address signals are regarded as being finished and the system dial sender, if connected, is disconnected.

■ Conditions

o The system dial sender is not used when a DTMF-SLT sends address signals to a DTMF COL.

2.3.A.5.3 Partial Dial Timeout (ICM)

If a station user inputs the first digit of a dial number after seizing an ICM line and does not input the next digit within 10 seconds, the ICM is released and a Warning Tone is connected to the station.

Conditions

o If the first digit of the number dialed is invalid, a Warning Tone is immediately connected.

2.3.A.5.4 Partial Dial Timeout (Registration/Cancellation)

In registering or canceling features, operating intervals of input keys or dial must be less than 10 seconds. Registration or cancellation operation is complete in some cases, or invalid in others, upon timeout.

Conditions

o For details, refer to the pertinent sections.





2.3.A.5.5 Overall Timeout

Registration or cancellation of a feature must be completed within a specific time. Upon timeout, the operation is complete in some cases or invalid in others.

Conditions

o The maximum time allowed for operating input keys and dial is as follows:

Up to three digits:

10 seconds

Four to eight digits:

20 seconds

Nine digits or more:

30 seconds

o For details, refer to the pertinent sections.

2.3.A.5.6 CPT Timeout

A Warning Tone or Busy Tone connected to a station continues for 10 seconds.

Conditions

o If a station that is calling a station is overridden or if an Attendant that is calling on an ICM line finds the called party busy, a Busy Tone is connected without time limits. The former case the station may return to the call and the later case the Attendant may use busy override facility. (See Section 2.3.O.6.1 Busy Override.)

2.3.B.1 Background Music

2.3.B.1.1 BGM From KT/VP

Background music can be heard thru the speaker of KT/VP while no other audible indication exists.

Conditions

o A KT/VP user is allowed to change BGM on/off.

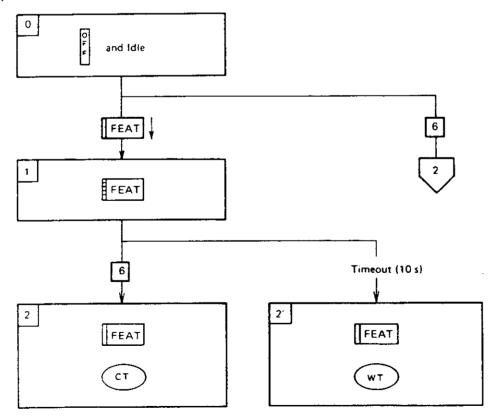
UZTAWI

- o The BGM is disconnected when the handset is lifted or the SPKR key is on.
- o Source of background music needs to be connected to the system. (See Section 3.4.6, Installation of External Devices.)

2.3.B.1.1.1 BGM On

Operation Guide

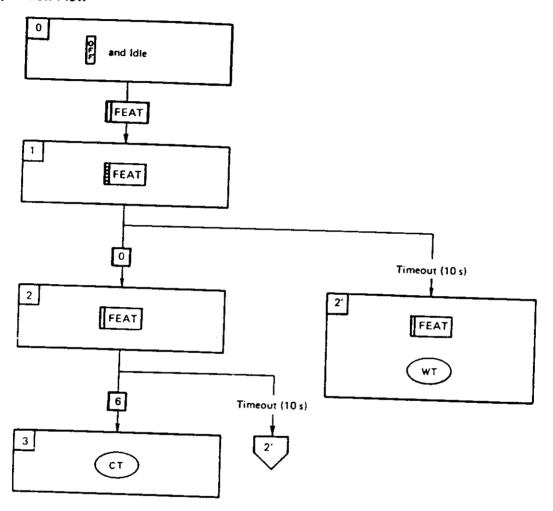
Operation Flow



2.3.B.1.1.2 BGM Off

Operation Guide

Operation Flow



2.3.B.1.2 BGM From Zone Speaker

While zone speakers are idle, Background Music may be heard thru them.

Conditions

- o Set BGM on off with Strapping Jack (See Sections 3.4.6.7 to 3.4.6.9 on instructions for external devices.)
- o Background Music Source and Amplifier are required.

2.3.B.2 Busy Lamp Field

2.3.B.2.1 Attendant Busy Lamp Field

An Attendant has 48 busy lamps on DSS console.

Conditions

- o DSS key lamps on the DSS-M/N indicate as a Busy Lamp Field unless performing Trunk Forced Release or Programming Terminal features.
- o See Table 2.2.3.1.3 for type and content of BLF indication.
- o The No. in Table 2.2.3.1.3 shows the indication priority (1 to 6) of indication.
- o State of stations of the same tenant as the Attendant can be indicated on the BLF.

2.3.B.2.2 Busy Lamp Field Unit

In addition to an Attendant BLF, up to two Ex-Busy Lamp Field Unit-Ms can be connected to the system. (See Section 3.11.2 BLF-M Installation.)

Conditions

- o They have 12 DSS lamps which indicate the same information as those on ATTND1 or ATTND2.
- o These 12 lamps can be assigned freely to any station.
- o Up to 2 BLF-Ms may be connected as a subset of ATTND1 and of ATTND2, so up to 4 BLF-Ms connected in total.
- o When the Attendant is used as Programming Terminal, all lamps on BLF-M blink out in pattern No. 8 (Programming) (Table 2.2.3.1).



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2.3.C.1.3 Input Keys

0 ~ 9 Ten Keys

Arithmetic Operation Keys

- X ÷ = . Equal Key O-Point Key

EXP Exponent Used for entering a value as an exponent.

All Clear Clears all entries except the contents in the memory.

MR Memory Recall Load the contents of the memory.

M+ Memory + Add some value to the memory. (m is displayed when a value except 0 is stored.)

MC Memory Clear Clears the contents of the memory.

CE Clear Entry Clears the immediately preceding entry. Used for correction or deletion of a value that has been entered by mistake.

sign Reversing Used for entering a negative value (including exponents)

Percent Used in together with arithmetic operation keys for calculation of ratio, premium, reduction, or change ratio.

2.3.C.1.4 Calculation Example

$$0.12.3 - 45.6 + 78 \times 10^2 =$$

o
$$12 \div (-3) + 45 =$$

o
$$2 \times 3 =$$

+) $4 \div 5 =$
total

$$02+2+3+(6\times3)+(5\div4)=$$

o What percentage is 20 of 50?

$$\frac{20}{50}$$
 × 100 =

o What value is 17% of 1500?

$$1500 \times \frac{17}{100} =$$

o What percentage is the sum of 85 and 20 of 85?

$$\frac{85+20}{85}$$
 x 100 =

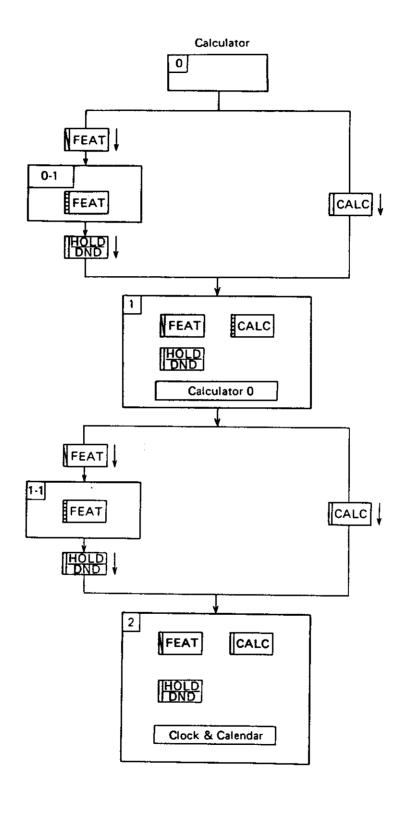
o By what percentage is 46 larger than 40?

$$\frac{46-40}{40}$$
 x 100 =

o By what percentage is 55 smaller than 63?

$$\frac{55-63}{63}$$
 × 100 =

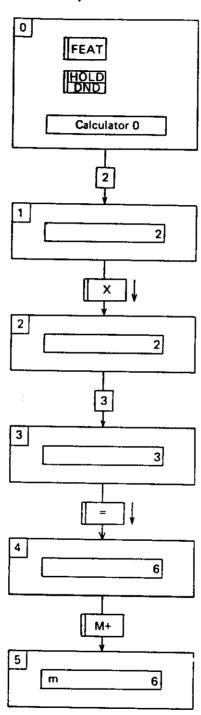
Operation Flow



■ Operation Flow

Calculator Operation Sample 2 x 3 = 6 Memory In

C



Ringing is abbreviated in some kind of call when the called KT/VP is busy.

Conditions

- o This feature is applied to COL Recall, COL Callback, COL Camp On, ICM Hold Recall, and ICM Callback.
- o Busy condition is defined as the receiver being off-hook or the speaker being on.
- o The system gives only a single audible ring of short duration at the called station.
- o An Abbreviated Ringing returns to normal when KT/VP becomes idle.
- o When there is an abbreviated call (A) and an unabbreviated call (B), and the priority of A is higher than B, then A is rung the usual pattern, but while KT/VP is busy, A is rung for the first period and then B is rung continuously.

(Example: A: COL Recall, B: COL RGT)

o Valid with KT/VP which has the class-of-service 'Off-hook Signal Deny'.

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2.3.C.3 Callback Queuing

Callback queuing is valid on busy COLs or busy COL groups.

2.3.C.3.1 COL Call Back Queuing

A KT/VP user can register a queuing on a COL or a COL group while the COL or the COL group is busy so that an alert with Callback Tone is made when it becomes idle. If he registers telephone number together, that telephone number is automatically dialed when he responds to the Callback.

Conditions

- o This feature is not available on outgoing restricted COL.
- o Multiple reservations on the same COL are called back in the order the reservations are made.
- o Only one newest registration (including Timed Trunk Queuing) is valid for one KT/VP.
- o A Callback Tone continues for certain duration of time and then automatically released if it is not responded. (Duration of time can be set freely by Programming System Constants item 6 to between 10 and 255 seconds.)
- o When COL call incomes while Callback Tone is ringing, the Callback is interrupted and COL RGT ringing replaces it. Callback restores after the conversation on the COL has completed.
- o Callback Queued COL cannot be picked up by other station than called party.
- o Abbreviated Ringing is applied to the Callback Tone. (See Section 2.3.C.2 Abbreviated Ringing.)
- o The Callback Tone is prior to Call Forward/Busy Call Forward and DND. (See Section 2.3.T.2 Timed Trunk Queuing.)

2.3.C.3.1.1 Registration

A KT/VP user can set a Callback Queuing at the moment a COL/COL group outgoing call becomes busy.

Conditions

- o A maximum of 32 digits can be registered for automatic dialing.
- o Automatic dialing number "n" means "for n-seconds pause" and """ means dial "". They are counted as two digits.
- o A KT/VP users may save a Speed Dial or Redialing number as the telephone number of automatic call origination.

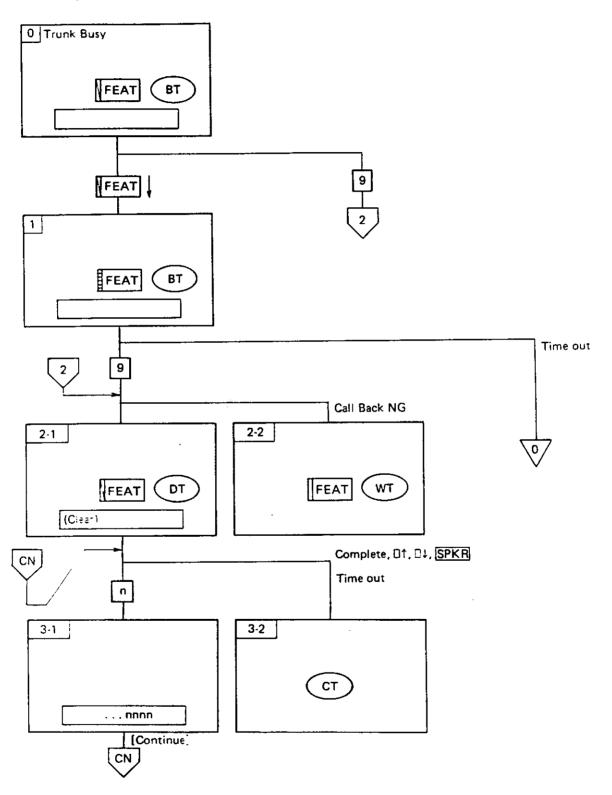
Operation Guide

(Off-hook and BT) FEAT + 9 + (
$$d_1$$
 + d_2 +...+ d_n) (1 \leq n \leq 32)

Operation Flow

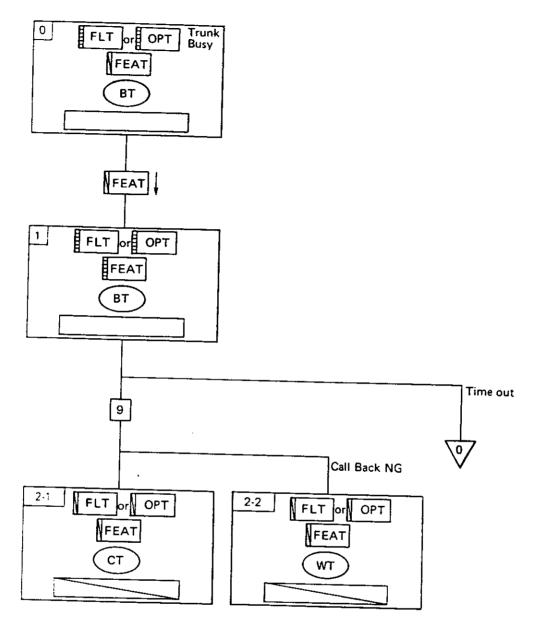
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i) COL Group Access



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ii) Optimized Call Routing Access



2.3.C.3.1.2 Cancellation

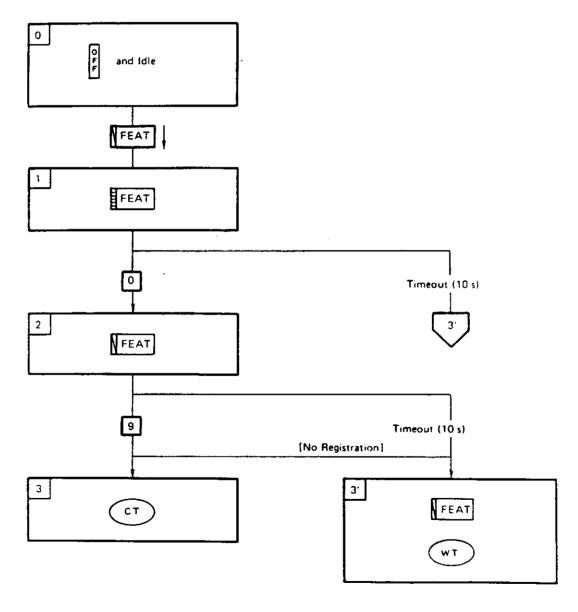
A KT/VP user can cancel the registration of a Callback Queuing.

Condition

Callback queuing cancel and timed trunk queuing cancel are done by the same operation.

Operation Guide

■ Operation Flow



2.3.C.3.2 ICM Automatic Callback

If a KT/VP user registers an Automatic Callback when the called party is busy or does not respond an ICM call, an ICM Callback Tone is returned to the station when called party and caller becomes idle. An ICM call then automatically is connected to the called party as soon as the caller respond to the Callback.

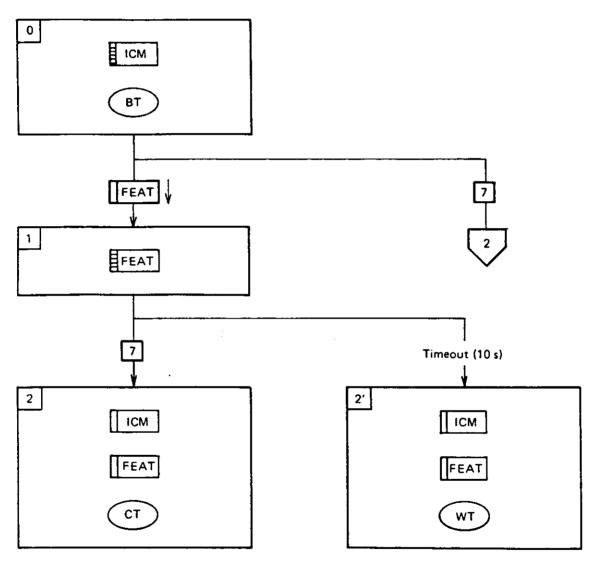
Condition

- o Callback is activated only when the station of the called party is not in DND status, on-hook status, and not receiving another call.
- A Callback Tone continues for certain duration of time and then automatically released if it is not responded. (Duration of time can be set freely by Programming System Constants item 6 to between 10 and 255 seconds.)
- o When all the available ICM are busy, no Callback is made even if the called station goes idle.
- o Only one Automatic Callback can be registered per station.
- o If a station that has already registered an Automatic Callback registers new one, the former registration is automatically canceled.
- o If two or more registration are set to a station, the earlier one is activated when the station goes idle.
- o When a KT/VP user completes registration/Cancellation, he receives a CT.
- o If he cancels inspite of no registration, he receives a WT.

2.3.C.3.2.1 Registration From Key Telephone/Versa Phone

Operation Guide

Operation Flow



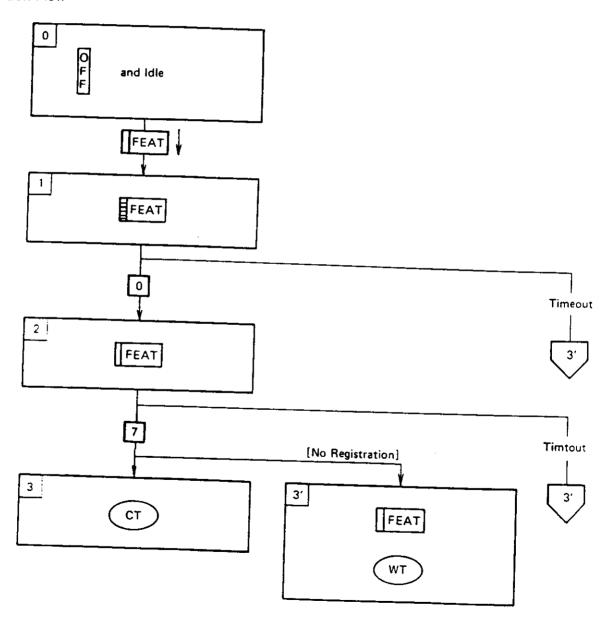


Operation Guide

2.3.C.3.2.3 Cancellation From Key Telephone/Versa Phone

Operation Guide

Operation Flow



2.3.C.3.2.4 Cancellation From Single-Line Telephone

Operation Guide



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2.3.C.4 Call Forward

This feature allows a station user to register call forward destination number, and while call forward is activated by the station user, all incoming calls except callback and recall to this station will be automatically rerouted to that registered destination station.

Call Forward functions are classified as follows:

2.3.C.4.1 Call Forward

2.3.C.4.2 Busy Call Forward

See Section 2.3.A.1.14 Call Forward Forced Release. See Section 2.3.A.1.15 Busy Call Forward Release.

2.3.C.4.1 Call Forward

Certain kinds of call is automatically rerouted to a destination station while call forward is activated.

- Conditions
 - o Destination station number is required to be registered.
 - o Calls which may be forwarded are showed below.
 - i) COL RGT
 - ii) ICM Voice Call
 - iii) ICM Tone Call (excluding Master Group Hunt Call)
 - o If the destination of Call Forward is engaged in Call Forward, the call is rerouted again, but it cannot be rerouted any further.
 - o A COL call is not rerouted to a station which is restricted to pickup the COL.
 - o Recursive call forward may be registered. In this case rerouting is executed as described below.

Call Forward to B (Example 1) A:

A rings when B calls A.

Call Forward to B, B: Call Forward to C (Example 2) A:

B rings when C calls A.

- o Once call forward is registered, station user can activate or inactivate the Call Forward function. Calls are not forwarded when inactivated.
- o Call forward registration can be denied according to station class of service.
- Programming

Station Class-of-Service

Item 6 **Busy Call Forward**

Lit: Call Forward

Item 18 Call Forward Deny

Lit: Allow